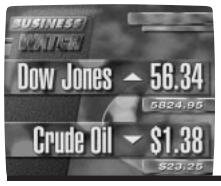
inscriber

CG·SUPREME™ 4.1

ONLINE



CHARACTER

GENERATOR

FOR WIN NT

inscriber TECHNOLOGY

User Guide

Copyright © 1999 Inscriber Technology Corporation. All rights reserved.
Inscriber Technology Corporation, 26 Peppler Street, Waterloo, Ontario, Canada N2J 3C4

No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of Inscriber Technology Corporation.

Inscriber is a registered trademark of Inscriber Technology Corporation. Inscriber/CG Supreme and the Inscriber logo are trademarks of Inscriber Technology Corporation. All other company and product names are trademarks or registered trademarks of their respective owners.

This document describes Inscriber/CG Supreme version 4.1. Subsequent revisions of the product may provide additional functionality or modify the limits described in this document. The information in this manual is furnished for informational use only, is subject to change without notice, and should not be construed as a commitment by Inscriber Technology Corporation.

Inscriber Technology Corporation
SOFTWARE LICENSE AGREEMENT

1. NOTICE. ***Inscriber Technology Corporation*** **IS WILLING TO LICENSE THE ENCLOSED SOFTWARE TO YOU ONLY ON THE CONDITION THAT YOU ACCEPT ALL OF THE TERMS CONTAINED IN THIS LICENSE AGREEMENT. PLEASE READ THIS LICENSE AGREEMENT CAREFULLY BEFORE OPENING THE SEALED DISK PACKAGE. BY OPENING THIS PACKAGE YOU AGREE TO BE BOUND BY THE TERMS OF THIS AGREEMENT. IF YOU DO NOT AGREE TO THESE TERMS WE ARE UNWILLING TO LICENSE THE SOFTWARE TO YOU, AND YOU SHOULD NOT OPEN THE DISK PACKAGE. IN SUCH CASE, PROMPTLY RETURN THE UNOPENED DISK PACKAGE AND ALL OTHER MATERIAL IN THIS PACKAGE ALONG WITH PROOF OF PAYMENT, TO THE AUTHORIZED DEALER FROM WHOM YOU OBTAINED IT FOR A FULL REFUND OF THE PRICE YOU PAID.**

2. Ownership and License. This is a license agreement and NOT an agreement for sale. We continue to own the copy of the software contained in this package and any other copy that you are authorized by this Agreement to make (the "Software"). Your rights to use the Software are specified in this Agreement, and we retain all rights not expressly granted to you in this Agreement. Nothing in this Agreement constitutes a waiver of our rights under any copyright law or any other law.

3. Permitted Uses.

3.01 Right to Install and Use. You may install and use the Software on the hard disk drive of any single compatible computer that you own. However, you may not under any circumstances have the Software installed onto the hard drives of more than one computer at the same time, nor may you install the Software onto the hard disk drive of one computer and then use the original distribution media on another computer. If you wish to use the Software on more than one computer, you must either erase the Software from the first hard drive before you install it onto a second hard drive, or else license an additional copy of the Software for each additional computer on which you want to use it.

3.02 Right to Copy. You may make one (1) copy of the Software for backup and archival purposes, provided that the original and the copy are kept in your possession, and that your installation and use of the Software does not exceed that allowed in Section 3.01, and provided you reproduce our copyright notice on the copy.

3.03 Right to Transfer. You shall not assign, transfer sublicense, rent, lend, or lease the Software or your rights under this Agreement without our prior written approval.

4. Prohibited Uses. You may not, without written permission from us: (a) use, copy, modify, merge, or transfer copies of the Software or documentation except as provided in this Agreement; (b) use any backup or archival copy of the Software (or allow someone else to use such copy) for any purpose other than to replace the original copy in the event it is destroyed or becomes defective; or (c) disassemble, decompile or "unlock," reverse translate, or in any manner decode the Software or the dongle security device for any reason.

5. Limited Warranty. We make the following limited warranties from the date you acquired the Software from us or our authorized dealer:

(a) Media. For a period of twenty (20) days, the distribution media and documentation in this package will be free from defects in materials and workmanship under normal use. If the distribution media or documentation fail to conform to this warranty, you may, as your sole and exclusive remedy, obtain a replacement free of charge if you return the defective disk or documentation to us with a dated proof of purchase.

(b) Interlock Security Device. Provided you are in compliance with this Agreement, we will replace a damaged or defective interlock security device (dongle) no matter what the cause of the damage. In order to receive a replacement device, you must return the damaged device to Inscriber Technology Corporation, 26 Peppler Street, Waterloo, Ontario, Canada N2J 3C4.

(c) WARRANTY DISCLAIMER. EXCEPT AS PROVIDED ABOVE, THE SOFTWARE AND DOCUMENTATION ARE PROVIDED ON AN "AS IS" BASIS, AND WE DO NOT WARRANT THAT THE SOFTWARE WILL MEET YOUR REQUIREMENTS OR THAT ITS OPERATION WILL BE UNINTERRUPTED OR ERROR-FREE. WE EXCLUDE AND EXPRESSLY DISCLAIM ALL EXPRESS AND IMPLIED WARRANTIES AND CONDITIONS NOT STATED HEREIN, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Some jurisdictions do not allow the exclusion of implied warranties, so the above exclusion may not apply to you. This limited warranty gives you specific legal rights, and you may also have other legal rights, which vary from jurisdiction to jurisdiction.

6. LIMITATION OF LIABILITY. IN NO EVENT SHALL WE BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS, REVENUE, DATA, OR DATA USE, OR MACHINE USE, INCURRED BY YOU OR ANY THIRD PARTY, WHETHER IN AN ACTION IN CONTRACT OR TORT, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. OUR LIABILITY TO YOU FOR ANY LOSSES SHALL NOT EXCEED THE GREATER OF $500 AND THE AMOUNT YOU ORIGINALLY PAID FOR THE SOFTWARE.

Some jurisdictions do not allow these limitations or exclusions, so they may not apply to you.

7. United States Government Restricted Rights. The enclosed Software and documentation are provided with Restricted Rights. Use, duplication or disclosure by the U.S. Government or any agency or instrumentality thereof is subject to restrictions as set forth in subdivision (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at 48 C. F.R. 252.227-7013, or in subdivision (c)(1) and (2) of the Commercial Computer Software -- Restricted Rights Clause at 48 C.F.R. 52.227-19, as applicable. Contractor Manufacturer is Inscriber Technology Corporation, 26 Peppler Street, Waterloo, Ontario, Canada N2J 3C4.

8. Termination. This license and your right to use this Software automatically terminate if you fail to comply with any provisions of this Agreement, destroy the copies of the Software in your possession, or voluntarily return the Software to us. Upon termination you will destroy all copies of the Software and documentation. Otherwise, the restrictions on your rights to use the Software will expire upon expiration of the copyright to the Software.

9. Miscellaneous Provisions. This Agreement will be governed by and construed in accordance with the laws of the Province of Ontario and not by the 1980 United Nations Convention on Contracts for the International Sale of Goods, as amended. This is the entire agreement between us relating to the contents of this package, and supersedes any prior purchase order, communications, advertising or representations concerning the contents of this package. No change or modification of this Agreement will be valid unless it is in writing, and is signed by us.

10. Quebec Transactions. If you reside in the Province of Quebec, Canada, you agree to the following: The parties hereto have expressly required that the present Agreement and its Exhibits be drawn up in the English language. Les parties aux presentes ont expressement exige que la presente convention et ses Annexes soient redigees en langue anglaise.

If you have any questions about this Agreement, write to us at Inscriber Technology Corporation, 26 Peppler Street, Waterloo, Ontario, Canada N2J 3C4, or call us at 519-570-9111.

Table of Contents

Overview Module 9-33

Inscriber CG/S — An Overview 10
Using the Play List 12
Using the Program/Preview Palette 14
Using the Scrapbook 16
Working with Files 18
Importing Referenced Clips and Animations 20
Printing the Play List 22
CG/S Output 24
Working on a Network 26
Inscriber Preferences 28
Cache Preferences 30
Online Output Folders 31
Inscribe.ini 32

CG Module 33-173

CG—Interface Overview 34
Importing and Exporting 36
Setting CG Preferences 38
Using the Formatting Palette 40
Speeding Up Your Work 42
CG Concepts 44
Working with Layouts 46
Choosing a Layout Type 48
Changing Still and Reveal Settings 50
Changing Roll Settings 52
Changing Crawl Settings 54
Using Clocks 56
Understanding the HSV Color Model 58
Understanding RGB and HLS Color Models 60
Understanding Backgrounds 62
Using Color Backgrounds 64
Using Complex Color Backgrounds 66
Using Video and Image Backgrounds 68
Understanding Objects 70
Using Style and Color Groups 72
Formatting Text and Graphics 74
Understanding Text Objects 76
Setting Text Attributes 78
Understanding Fonts 80
Using Character Mapping 82
Using the Font Manager 84
Understanding Type Styles 86
Understanding Classic Shadow 88
Understanding Classic Edges 90
Using Classic Beveled Text 92
Understanding Text Color 94
Working with Classic Color Gradients 96
Using Transparency 98
Using Additional Type Style Settings 100
Setting Depth, Shadow, and Sheen 102
Using Additional Beveled Text 104
Changing Recessed Settings 106
Changing Embellished and Edge Over Face Settings 108
Changing 10 Edges Settings 110
Changing Sheen Settings 112
Changing Neon Settings 114
Manipulating Text Lines 116
Moving Text Lines 118
Working with Markers 120
Using Tabs and Text Entry Features 122
Using Advanced Text Features 124
Using the Spell Checker 126
Importing Text 128
Defining Classic Textures 130
Defining Additional Textures 132
Mapping and Compositing Classic Textures 134
Using Classic Textures 136
Creating Graphic Objects 138
Formatting Graphic Objects 140

CG Module continued

Understanding Graphic Shadows and Edges 142
Manipulating Graphic Objects 144
Changing and Moving Graphic Objects 146
Transparency, Gradients, and Layering 148
Adding Logos to Layouts 150
Modifying Logos 152
Understanding Templates 154
Using Templates 156
Understanding News Edit 158
Creating News Edit Tables 160
Formatting News Edit Tables 162
Formatting Tabs in News Edit Tables 164
Using the News Edit Registry 166
Preparing Subtitle Files 168
Importing Subtitle Files 170
Playing Subtitle Files, Versioning, and Troubleshooting . . 172

Sequencer Module 175-215

Sequencer—Interface Overview 176
Getting Started in Sequencer 178
Groups and Events 180
Managing and Editing the Event List 182
Outputting Events to Video 184
Using the Event Editor Tab 186
Creating Transition Events 188
Selecting a Transition Type and Direction 190
Understanding Event Duration 192
Understanding Effect Events 194
Understanding Trigger Types 196
Configuring GPI and PC Clock Trigger Types 198
Configuring for Time Code Use 200
Using the Run Tab 202
Render Location and Rendered Images 204
Trim Editor 206
Setting Up Channels and Channel Ripples 208
Understanding Time Code Details 210
Sequencer Tips and Tricks 212
Setting Sequencer Preferences 214

Frame Grab Module 217-223

Frame Grab — An Overview 218
Using the Image Filters 220
Setting Up Frame Grab and Saving Files 222

Logo Compose Module 225-269

Logo Compose — Interface Overview 226
Logo Compose Concepts 228
Working with Files 230
Working with Tools 232
Setting Brush Attributes 234
Working with Alpha Tools and Logos 236
Understanding Alpha 238
Understanding Selections 240
Using the Selection Tools 242
Modifying Selections with the Select Tab 244
Using the Transformation Tools 246
Using the Transform Tab 248
Editing an Image 250
Using the Clone Tools 252
Applying Filters 254
Creating Textures 256
Viewing Your Image 258
Understanding Channels in Logo Compose 260
Understanding Video Images 262
Understanding Video Color 264
Understanding the Calibration Process 266
Using Short Cut Keys 268

Finding Information 271-319
Glossary 272
Index 300
Technical Support. 319

Procedures

Overview Procedures

The Play List vs. the Event List 13
Set Online Updates 15
Transfer Images Between Modules 17
Import an Animation in CG 21
Print Media 23

CG Procedures

View the CG Workspace 35
Import and Export Layouts 37
Change Font Sample Strings 39
Copy Style and Color Groups. 41
Create a Layout from a Template 45
Modify a Layout 47
Choose a Layout Type 49
Create Complex Lists Using Reveals. 51
Enter Text in a Roll or Crawl Layout. 53
Use Softness in a Crawl Layout. 55
Add a Clock to a Layout 57
Change Colors with the HSV Model 59
Change Colors Using RGB & HLS Color Models 61
Change the Video Transparent Pattern. 63
Create a Simple Color Background 65
Create a Complex Background 67
Create Color, Image, and Video Backgrounds. 69
Format Text 71
Use Text and Graphic Object Style and Color Groups 73
Use Advanced Text Formatting 75
Work with Text 77
Use Advanced Text Formatting 79
Use Character Maps and Keycodes 83
Use the Font Manager 85
Apply Different Type Styles. 87
Create Text Shadows 89
Create an Embossed Edge 91
Apply a Bevel 93
Select and Modify Colors 95
Use Gradient Options. 97
Use Transparency 99
Apply Depth, Shadow, and Sheen Options 103
Create a Double Beveled Edge with Transparency 105
Customize Recessed Type Style 107
Customize Embellished Type Style 109
Create Text with Ten Edges 111
Customize Sheen Type Style 113
Customize the Neon Type Style 115
Position Text Lines 117
Resize and Reposition Text 119
View and Modify Markers 121
View and Modify Tab Stops. 123
Enter Text on a Text Path 125
Spell Check a Layout 127
Import Roll Text 129
Define and Change Textures 131
Apply and Tint a Texture 133
Apply Textures 135
Align Textures 137
Create Graphic Objects 139
Change Graphic Object Shapes 141
Modify Graphic Object Shadows and Edges. 143
Use Advanced Graphic Options 145
Use Bevels. 147
Arrange Graphic Objects in a Stack. 149
Add a Logo to a Layout. 151
Apply Edges and Shadows to Logos 153
Create a Template 155
Modify an Existing Template 157
Link a Template to News Edit Tables 159
Create and Import a News Edit Table 161
Create and Format Tabular Text. 165

CG Procedures continued

Adding, Editing, and Updating a News Edit Table 167
Create a Subtitle File 169
Create a TimeCoded Subtitle File 171
Create a Subtitle File Using Formatting Codes 173

Sequencer Procedures

Create a Group and Change the Trigger Type 181
Edit the Event List 183
Take Images 185
Add Groups to an Event List 187
Define a Transition 189
Change Transition Directions 191
Set Up and Run Events for Subtitling 193
Stop, Resume, and Exit Takes 195
Create an Event List for a Talk Show 197
Use a GPI Trigger to Trigger Events 199
Set Times Using a Time Code Source 201
Use the Run Tab 203
Experiment with Location Options 205
Trim a Video Clip 207
Set Ripples for Multiple Boards 209
Edit and Offset In and Out Points Using Time Codes 211
Change the Online Directory 213
Change the Display Colors 215

Frame Grab Procedures

Grab an Image 219
Use Filters 221
Save a Frame Grab 223

Logo Compose Procedures

Experiment with Logo Compose 229
Experiment with Import/Export Options 231
Experiment with Tools 233
Experiment with Brush Attributes 235
Experiment with Alpha Tools 237
Working with Alpha Gradient Tools 239
Experiment with Opacity and Level of Selection 241
Clean Up a Logo 243
Import a Selection to Create an Effect 245
Experiment with Transformations and Create a Shadow . . . 247
Use the Transform Tab 249
Experiment with the Image Editing Tools 251
Clone an Image 253
Use Filters to Correct Color and Create Effects 255
Fill with a Seamless Pattern 257
Experiment on Individual Channels 261
Scale an Image 263
Mark and Legalize Illegal Colors 265
Experiment with Short Cut Keys 269

Overview

CG Supreme™ is an integrated environment where you can create broadcast-quality titles and sequence events in online and post-production suites. CG/S also supports logo creation, flying text, and video capture. CG/S does not support flying text. If you want flying text, you can purchase the CG/Xtreme plug-in option, which will enable the FX module and allow you to animate your layouts.

In this Section:

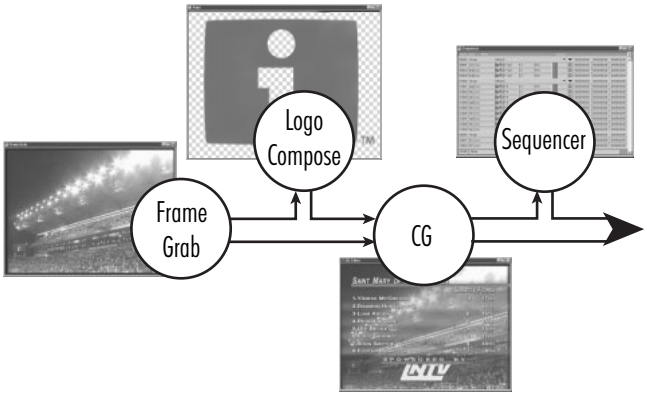
Inscriber CG/S Overview 10-11
Using the Play List 12-13
Using the Program/Preview Palette 14-15
Using the Scrapbook 16-17
Files, Clips, and Animations 18-21
Print the Play List 22-23
CG/S Output 24-25
Working on a Network 26-27
Setting Preferences 28-31
Configuring Inscribe.ini 32

Inscriber CG/S — An Overview

Inscriber CG/S is an integrated environment where you can create broadcast-quality titles and sequence events in online and post-production suites. CG/S also offers video capture and flying text. Titles created in CG/S can be keyed over video in a "live" environment using a third party video frame buffer. CG/S is a 32-bit application that runs under Windows NT. Not all frame buffers are supported in both operating systems.

How CG/S Works

CG/S is divided into five main modules that are all interconnected. When you first open CG/S, the character generator module (CG) is active, and it is your starting point in CG/S. The event sequencer module (Sequencer) is your ending point in CG/S, when you send layouts to video. The following diagram explains how the modules relate to each other.



You can use CG/S in a variety of ways. Here are some of the most common workflow scenarios:

- create one-off titles in CG and output them directly
- create layouts and titles in CG and output them in a sequence
- create layouts in CG and output them in a sequence
- create layouts in CG, add animation in FX, and output them in a sequence*
- use Frame Grab to grab images and output them in a sequence
- use Frame Grab to grab images to use as backgrounds for layouts and then output the layouts in a sequence
- use Logo Compose to transform bitmap images into logos that contain alpha information

*FX is only enabled if you have purchased the Xtreme plug-in option for CG/S

CG/S is separated into five main modules. The following table describes the functionality and features in each module.

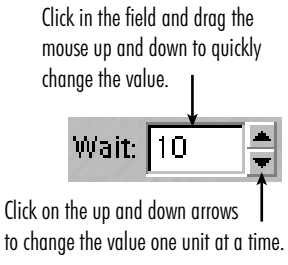
Module	Function and Features
CG	• creates layouts for stills, rolls, crawls, reveals, and animations for display to video • full-featured character generator • offers extensive typographic and color controls for design flexibility, producing fully anti-aliased and broadcast quality text characters
Sequencer	• manages and controls all online activity, including takes, transitions, trigger information, and board assignment information • allows you to output your work directly to video
Frame Grab	• captures a single frame or field from an incoming video signal and saves it as a still image • offers tools for modifying frame grabs, including cropping ragged edges and adding filters, and saves frame grabs in alternate file formats
FX	• animates text and graphics created in CG in virtual 3D space • includes filters and settings to change the way text or objects look over time • FX is only enabled if you have purchased the Xtreme plug-in option for CG/S
Logo Compose	• transforms any bitmap image into an Inscriber format logo • offers logo editing tools that can create color or monochrome logos, and can save logos as 32-bit images that contain alpha information

Set Field Values

CG/S offers several ways to set field values in all modules. You can use the standard Windows methods of clicking on the Up/Down arrows next to the fields, or type a value directly into the field.

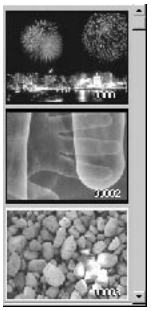
You can also use this additional option: click on the field and drag up or down to increase or decrease the value.

To reset a field value to the default, double click on the field.


Click in the field and drag the mouse up and down to quickly change the value.
Wait: 10
Click on the up and down arrows to change the value one unit at a time.

Using the Play List

The Play List palette contains image thumbnails of all the events in a job. The Play List provides a quick interface for editing your event sequences, allowing you to quickly add, move, copy, and replace events in your current job. You can also take images to video directly from the Play List.



The Play List palette is integrated with every CG/S module: CG, Sequencer, Frame Grab, and Logo Compose. You can perform all of the tasks listed here in any of the CG/S modules. By default, the Play List palette is located on the left side of the display, but you can convert it to a floating palette by dragging it anywhere on the screen.

Add to and Create an Event Sequence

Using the Play List palette, you can add to an existing event sequence or create an entirely new one. Use the creation options in CG, Logo Compose, and Frame Grab to create the layouts for the Play List. For example, when you create an image in CG, the image automatically appears in the Play List. At this point, the event has a default transition applied to it.

To create a new event, simply select a blank slot in the Play List or select Playlist→Log Event. The new events are based on the current Registry template. See "Understanding Templates" on page 122 for details on the Templates Registry.

Edit the Play List

You can rearrange the event sequence by dragging the event thumbnails from one spot to another in the Play List palette. Click on the event you want to copy (the selected event) and drag it to a new position. The Play List scrolls up or down when you hold the cursor at the top or bottom of the list. The cursor shape indicates whether the event you are dragging is inserted above, below, or as a replacement for the event under your mouse cursor (the active event).

Cursor	Description
	• inserts the selected event above the active event
	• replaces the active event with the selected event
	• inserts the selected event below the active event

By default, CG/S makes a copy of any event you select and pastes the copy in the new Play List slot; the original event stays in its initial Play List position. To move an event from one spot to another, hold down CTRL when you click and drag the event. The event is deleted from its old position once it is inserted in the new slot.

If you prefer menu controls, use Cut Event, Copy Event, and Paste Event from the Playlist menu to edit the Play List sequence. You should note that the cut, copy and paste shortcut keys (CTRL + X, CTRL + C, CTRL + V) do not work when moving events in the Play List.

Open Job Files from Other Inscriber Products

CG/S can open job files from any version of CG/S, Inscriber/CG, or VMP Studio. It opens the .ins file that stores image layouts and attempts to render the finished events when you go online.

CG/S looks in the original file location for images, backgrounds, textures, and logos. If it does not find the external files in the original location, CG/S looks in the Samples folder under the current folder. If the external files are not in either location, CG/S replaces them with gray bars. If fonts are missing, CG/S uses the first font in your font list.

Takes and Previews

There are two ways to do takes from the Play List: double-click on an event thumbnail, or drag an event thumbnail to the Program/Preview palette. See "Using the Program/Preview Palette" on page 14 for details.

The Play List vs. the Event List

1 Click on the CG icon on the CG/S toolbar to switch to CG.

2 The first slot in the Play List is highlighted. Enter some text in the layout; the Play List thumbnail is updated to reflect your changes.

3 Click on the next blank slot in the Play List and enter some more text.

4 Repeat step 3 until you have a Play List with at least six events.

5 Click on the Sequencer icon on the CG/S toolbar to switch to Sequencer.

6 Click on the event numbered 00003 in the Event List. Event 00003 is also selected in the Play List.

7 Select an event in the Play List. The corresponding event is also selected in the Event List.

8 In the Play List, double-click on the event numbered 00002 to do a take of the event. The event is displayed on your output monitor and on the Program palette.

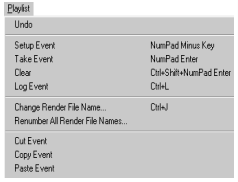
9 Select another event from the Play List and drag it to the Program palette to do a take.

10 To preview an event, select and drag an event from the Play List to the Preview palette. The event is displayed on your Preview Channel, if you have one.

11 Select the Play Direct button on the toolbar to run the entire event sequence. Sequencer goes online automatically.

12 Watch how both the Play List and the Event List run the sequence. The Event List highlights the current event line, while the Play List visually identifies the current event by highlighting the image thumbnail as the sequence plays.

13 You can cut, copy, paste, preview, and take events using the various options on the Playlist menu.



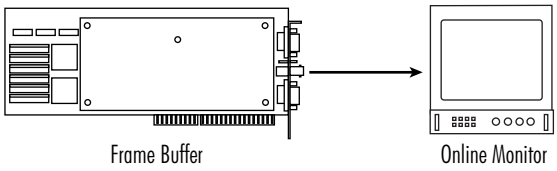
Using the Program/Preview Palette

The Program/Preview palette allows you to view the contents of the Program Channels and Preview Channels. You can configure CG/S to automatically update all channels. You can perform quick takes by dragging an image thumbnail of an event from the Play List or Store to any of the Program/Preview windows.

The Program/Preview palette is integrated with every CG/S module: CG, Sequencer, Frame Grab, and Logo Compose. By default, the Program/Preview palette is located on the bottom left side of the display, but you can convert it to a floating palette by dragging it anywhere on the screen with the mouse.

Why Use the Palette?

In a one board system, you usually have only one online monitor. In this situation, the Program/Preview palette is used to clear the frame buffer, view the Program Channel, view the Preview Channel, and perform quick takes (takes made while CG/S is offline).



In multi-channel situations where you have multiple frame buffers and monitors, the Program/Preview palette lets you:

- view the contents of any Program Channel
- view the contents of any Preview Channel
- clear any of the frame buffers
- perform quick takes
- perform quick previews

The Program/Preview palette expands to display a maximum of three frame buffer boards. To display multiple boards, click on the Arrow button beside the Preview button. Use the Arrow button at the top of the palette. See “Setting Up Channels and Channel Ripples” on page 208 for details on setting up multiple frame buffer systems.

The Program Channel

The Program Channel is the video channel used to broadcast or send a Play List to tape. In multiple frame buffer systems, you can have multiple Program Channels.

The Preview Channel

The Preview Channel is the video channel used to preview video before you output it to the Program Channel. Even in multiple frame buffer systems, you can have only one Preview Channel. In a single frame buffer system where you don’t have a physical Preview Channel, you can still view the contents of the Preview Channel on the Preview palette, or on the Run tab’s Preview Output window.

Quick Takes and Previews

A quick take or preview is a take or preview done while CG/S is offline. You can perform quick takes and quick previews by dragging the event thumbnail from the Play List to the Program/Preview palette. To perform a quick take, drag an event thumbnail to the Program Channel. To perform a quick preview, drag an event thumbnail to the Preview Channel.

Automatic Live Updates

You can enable automatic live updates by selecting the PGM and PRV buttons on the Program/Preview palette. When you enable live updates, CG/S sends any changes you make to an event directly to the channels enabled for live updates. The PGM button enables live updates for the current Program Channel. The PRV button enables live updates for the Preview Channel.

Set Online Updates

1 Click on the CG button to switch to CG.

2 Click on the CLR button on the Program/Preview palette to clear the output monitor.

CLR

3 Click on the PGM button to turn on automatic online updates for the Program Channel. CG/S performs a take of the selected Play List event.

PGM

4 Enter some text in the layout. The online display is automatically updated.

5 Click on the PGM button on the Program/Preview palette to turn off automatic online updates for the Program Channel.

6 Click on the CLR button to clear the frame buffer.Click on the PRV button to enable automatic Preview Channel updates.

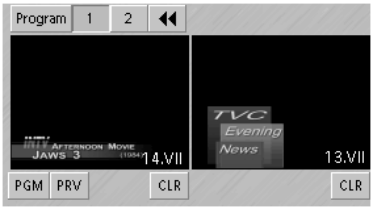
The following steps require that you have a Preview Channel output monitor:

PRV

7 Enter some text in the layout. The preview display is automatically updated.

8 Press the ENTER key on the number pad to do a take on the Program Channel.

9 Click on the PRV button to disable automatic Preview Channel updates.



Using the Scrapbook

The Scrapbook is a temporary parking space for layouts, frame grabs, logos, and other images. The Scrapbook is useful for transferring images between modules. If you drag or add an image to the Scrapbook, the image is held there, but is not saved.

The Scrapbook is a temporary holding space only. The Scrapbook is emptied when you exit CG/S.

Add Items

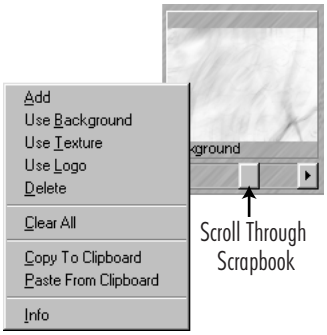
There are two ways to add an image to the Scrapbook:

- select an item and drag it to the Scrapbook
- select an item, right-click on the Scrapbook, and select Add from the menu

The Scrapbook always identifies the form of the current item: layout, background, logo, image, etc.

Select a Scrapbook Image

Use the scroll bar to view items in the Scrapbook. When you first launch CG/S, the Scrapbook is empty and the Inscriber logo appears in the Scrapbook window. Every time you add an item to the Scrapbook, the last item added appears in the window until you scroll left or right. The item that appears in the window is the selected item.



Scrapbook Menu

Right-click on the Scrapbook to see a menu of options. The options listed on the menu change depending on the origin of the selected item and the module you are currently working in.

Menu Option	Function
Add	• copies the selected item and places it in the Scrapbook
Use	• uses the selected item • option appears if there is only one possible use for the selected item, as in Sequencer and Logo Compose • in Frame Grab, the Use option is not functional
Use Texture*	• in CG, copies the selected item to the Texture map

Menu Option	Function
Use Texture*	• in CG, copies the selected item to the Texture map
Use Layout*	• replaces the current layout with the selected item
Use Logo*	• in CG, copies the selected item to the Logo map
Delete	• removes the selected item from the Scrapbook
Clear All	• removes all items from the Scrapbook
Copy to Clipboard	• copies the selected item to the Windows clipboard
Paste From Clipboard	• adds the item on the Windows clipboard to the Scrapbook
Info	• opens a dialog that indicates how many items are stored in the Scrapbook, and how much disk space the Scrapbook file is using

* these menu options are only available when a background, texture, layout or logo is the selected Scrapbook item.

Transfer Images Between Modules

1 Switch to Logo Compose.

2 Select Import/Export→Import Image from the File menu, navigate to an image location and select an image.

3 Right-click on the Scrapbook and select Add from the menu. Your image now appears in the Scrapbook window.

4 Switch to CG.

5 Right-click on the Scrapbook and select Use Logo from the menu. When you switch to the Logos tab, your image appears in the Logo map.

6 Right-click on the Scrapbook again and select Use Background. Your image now becomes the background for the current Play List event.

7 Switch to Frame Grab and click on the Grab button to grab a frame from your video signal.

8 Right-click on the Scrapbook and select Add to add your grab to the Scrapbook.

9 Switch to Sequencer, click on a blank Play List slot, and select Use from the Scrapbook menu. Your frame grab is added to the Play List.

10 Scroll through the Scrapbook and go back to the first image you added. Right-click and select Delete from the menu. The selected image is deleted from the Scrapbook.

Working with Files

You can use options on the File menu in CG/S to open, close, and save jobs that you create. A job consists of all of the elements the Event List or Play List.

Open a Job

When you open a new or saved job, CG/S always asks you if you want to save the current job. You can choose to save your work or delete it.

You can also use File→Recent Files to open jobs that you access frequently. The filenames of the jobs you have worked on most recently appear beside the menu when you place your mouse pointer over the Recent Files option. Selecting a job file using this method avoids having to find the filename on the Open dialog.

.Bak Files

Whenever you open a job, a backup file of the job is created, using the same filename and a .bak extension.If something happens to the job file, you can replace the .bak extension with .ins and open the backup file in CG/S.

Save a Job

When you save a job, it is saved with a .ins extension. Try to use descriptive filenames for your jobs, so you know what they are when you look at the file names.

Close a Job

When you close a job, CG/S gives you the option of deleting the online rendered files from your hard drive. The rendered files as well as the folder containing the rendered files are deleted.

Delete a Job

The File→Delete command lets you delete an entire Play List, the online folder, and all rendered files for the Play List. If you choose to delete an entire job, remember that you cannot undo this action.

Understand Job Folder Extensions

All of the rendered files for a job are saved in a folder with an OnlineFiles extension. This extension makes it easier for you to identify job folders.

CG saves all the rendered files for a job in a single folder. By default, this folder is a new subfolder in the same folder as the job file. The folder for the rendered files matches the name of the job file. For example, if you create Sail.ins, the folder for the rendered files is Sail.OnlineFiles.

You can change the Online Output Directory location in the Preferences dialog. See Sequencer Preferences “Online Folder Extension” on page 212 for details.

Share the Font Database File

You can share your Inscriber font database among a number of users. By default, CG uses Inscribe.ift in the startup folder as its font database. If you edit Inscribe.ini and change the IFTName entry in the [IFT Preferences] section, CG looks in another location for the font database. Set the value to a font database anywhere on your network. For example, IFTName=z:\fonts\Inscribe.ift tells CG to look for the font database in z:\fonts.

If all users on your network point to the same shared database, the fonts available to each user are exactly the same. However, on a slow network, you may find typing speed slows down too much to make sharing a font database useful.

Decide on a File Format

When you export an image from CG/S, you can select a number of different graphic file types, including .vii, .bmp, and .tga.

Files exported as .vii files are often smaller, but these files can only be read by Inscriber products. If you are exporting an image to be used in another package, you may want to use another graphic file format. The alternate recommended graphic format is .tga, because .tga files are cross-platform and 32-bit, which preserves the alpha information.

Export Macintosh Format Files

If you need to use images created in CG/S on a Macintosh system, you can use several export options to convert the files to Macintosh-compatible formats. If you save the file in a 32-bit .tga format and transfer it to a Macintosh drive, most programs can read the file without any further modification.

You can also export PICT files that can be transferred to a Macintosh and opened in other applications. Since some applications require that PICT files have a resource fork, you can use the Pict Identifier utility to add a resource fork to the PICT file.

To add a resource fork, find the PictIdentifier2.sit file in the CGS\Utilities folder. Copy this file to a Macintosh and unpack it using Stuffit. In CG/S, select File→Export→Export Image to export your layout as a PICT. Transfer the PICT file to a Macintosh. In the Finder, drag the PICT file onto the Pict Identifier application program.

Word Import Utility

A collection of Word 7.0 macros are included with CG/S to let you quickly convert PowerPoint 7.0 presentations and Word files into a text format readable by CG. You can also insert Inscriber formatting characters in these files.

Packed Jobs

Packed jobs are a way of collecting all of the images, fonts, and settings for a job. The packed job format is intended as a way to archive or transfer entire jobs.

To save a play list as a packed job, select File→Save As and then select Inscriber Packed File as your Save as type option.

Saving a play list as a packed job saves all of your logos, textures, bitmaps, fonts, and layout settings for each layout in a single large file. Packed job files can become quite large, and are only useful for archiving purposes and for transfer over a network. If you want to export a single layout for transfer to another computer, use File→Export→Export ICG File instead.

Where possible, TrueType fonts are also saved with the packed jobs. However, all TrueType fonts have an embeddability setting from their manufacturer that determines whether or not the font can legally be saved in the packed job file.

If the font has installable or editable embedding, it can be saved in the packed job file and worked with on another computer. If the font has print&preview embedding or restricted licence embedding, it cannot be saved in the packed job file. If a font cannot be saved, CG/S displays an error message telling you which fonts have not been saved. If the font is already installed on the computer you are moving the packed job to, you can still access the font and edit your layout.

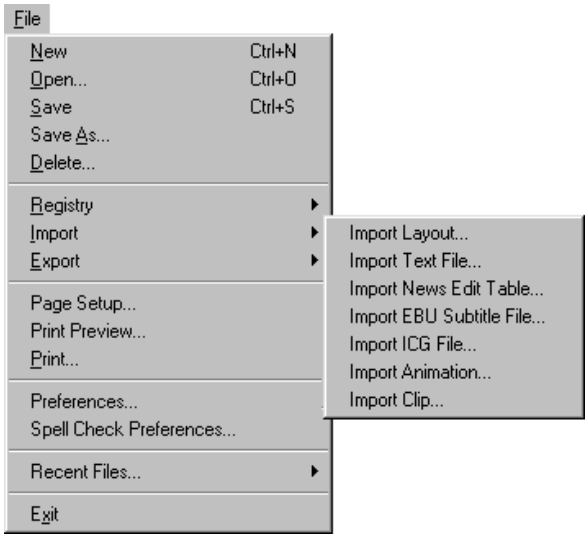
Importing Referenced Clips and Animations

You can import clips and animations directly into the Play List in Sequencer and CG. Imported clips and animations can be trimmed in CG/S, but they cannot be changed in any other way.

Use an Animation as an Event

You can add an animation to the Play List, but you cannot modify the animation in any way using standard CG.

Click on an empty slot in the Play List, select File→Import→Import Animation, and then select your animation file. The first frame of your animation is displayed in the Play List. All animations have a .via extension.



You can create an animation in .via format by exporting it from MotionPak, or by creating it in Via Builder. The .via format is a proprietary Inscriber animation file format. Any animation you create in an external animation application, can be added to the Play List.

Create Animations using VIA Builder

You can create an animation in any multimedia or 3D software package and import it into the Sequencer or CG module. You need to follow these steps to use the animation in CG/S: create the animation, export the individual animation frames, create a .via file using Inscriber Via Builder, and import the .via file into CG or Sequencer.

When you export the individual animation frames, make sure that the file format you export to is supported by Via Builder. Sequential .tga files are the recommended file format. If your software supports the functionality, you can export the frames as full 32-bit files complete with alpha. CG/S recognizes and uses any alpha in your .tga output files.

To create a .via file, use the Via Builder program that comes with CG/S. You can find it in the Utilities folder on the CG/S CD ROM. See the Via Builder online help for details on using Via Builder to create animations.

Once you have created a .via file, open CG/S, switch to CG or Sequencer, and select File→Import Animation to import your .via file.

Use a Clip as an Event

You can add a clip to the Play List in CG or Sequencer. Like animations, you cannot change the basic clip in any way using standard CG/S tools.

In CG or Sequencer, click on an empty slot in the Play List, select File→Import→Import Clip, and then select your clip file. The first frame of your clip is displayed in the Play List. All clips have a .avi extension.

Modify Clips and Animations

You can modify playback of imported clips and animations in two ways. Using Sequencer, you can loop a clip or animation, or you can trim a clip or animation. If you want to make any other changes to your clip or animation, such as slowing down or speeding up play back, or changing its duration in other ways, you need to go back into the application where you created the original animation or clip and adjust the timing there and re-import the updated version.

Referenced Clip and Animation Details

When you import a clip or animation into CG/S, it is always a referenced file. You cannot render it to local RAM or a local disk. When you are running a job with a referenced clip or animation in it, Sequencer plays the clip or animation as it comes to it in the Play List.

When you import a clip or animation into CG or Sequencer, the first frame of the clip or animation is generally used as the thumbnail that appears in the Play List. However, you can choose a different thumbnail if you use Via Builder to create your .via file. See the Via Builder online help for details on selecting a different frame as the thumbnail.

Even though you can add text and graphic objects to the layout containing an imported clip or animation, none of these objects appear when you take the clip or animation to video. CG/Signores any additional information and simply plays the clip or animation.

Import an Animation in CG

1. Create a short animation in an external animation application.
2. Give the animation an easily recognizable name and remember what folder you save it in.
3. Switch to CG and click on the next blank thumbnail in the Play List.
4. Select File→Import→Import Animation and select your .via file. CG imports the animation into the Play List. The first frame of the animation appears as the thumbnail.
5. Click on the next blank thumbnail in the Play List and create a layout with the line "Layout Number Three" centered on the layout.
6. Switch to Sequencer and select the animation event.
7. On the Event Editor tab, increase the number of frames for the event. Notice that you can only increase the number of frames incrementally by the length of the animation. If your animation is 30 frames, you can only set the frame value to multiples of 30, such as 60, 90, or 120. Each increase in the number of frames loops the animation once.
8. Click on the Play Direct button on the CG/S toolbar to go online and run the job.

Printing the Play List

You can print an entire Play List in CG/S, but you must be in the CG module to do it. All print options are located on the File menu. Print options include Page Setup, Print Preview, and Print.

Print a Play List

You can print the current Play List from the Preview window only. If you are in Sequencer and you want to print the Play List, switch to the Preview window and select Print.

Page Setup

When you select Page Setup from the File menu, the Print Preferences dialog opens. This dialog includes Text options and Image options. Text options set the information that accompanies each printed image. You can include the image Number, Name, Timecodes, Transition, Direction, Duration, Wait, or Quick Print option in the print out. Checked items appear in the print out.

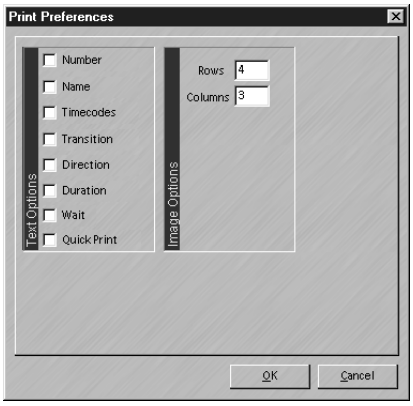


Image options determine how many items are printed per page. Set the number of images to print per column and per row. For example, if you set four rows and three columns, 12 images will print per page.

Print Preview

The print preview, called from the File menu, shows you how your images will look on a printed page. Each image appears in thumbnail format, accompanied by the Text options set in the Print Preferences dialog. If you are printing multiple pages, click on the Next Page button to view the rest of the pages set to print.

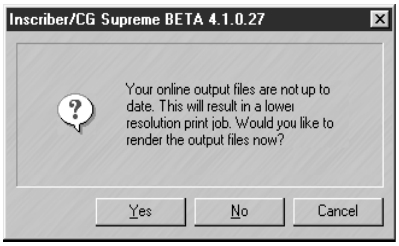
Examine the preview and make sure all the images you want to print are included. Click on the Zoom In button to get a closer look at the images. If you want to make changes to an image or to the text options included with the printout, close the Print Preview and go back to Page Setup.

If you are satisfied with the way the preview looks, click on the Print button and select print options from the Print dialog.

Change Printing Speed

Printing speed depends on whether you print high resolution rendered images or low resolution image thumbnails. The high resolution images are about 10 times the size of the lower quality images and take considerably longer to print.

When you print, CG/S checks to see if online files exist. If they do, it prints those high-resolution rendered images. If there are no online files for the images you want to print, CG/S asks you whether you want to render the images and print the high quality ones, or just print the low resolution images.


Inscriber/CG Supreme BETA 4.1.0.27
Your online output files are not up to date. This will result in a lower resolution print job. Would you like to render the output files now?
Yes
No
Cancel

If you have rendered the images, but only want to print them at low resolution, you can select Quick Print in the Print Preferences dialog. Make sure your printer is set to draft mode on the Windows Printer Properties dialog.

Print

You can print directly from Print Preview, or you can close the window, make changes, then select Print from the File menu.

Print Media

1. In CG, create the Play List you want to print.
2. To set up how the images will appear when printed, select File→Page Setup.
3. In the Print Preferences dialog, select the text options that you want to appear with each printed image. The text will appear beneath each thumbnail.
4. To change how many images appear on each page, enter new values in the Rows and Columns fields. The default is set to three Rows and four Columns so a total of 12 images will appear on each page.
5. Click on OK to save your changes, or Cancel to close the dialog without saving changes.
6. Select File→Print Preview to see how each page will look when printed. You can view one page or two pages at a time.
7. If you are satisfied with the preview, click on Print to print the pages. Otherwise, click on Close and choose Page Setup to change the options selected, or make changes to the Play List.
8. To print the images without previewing the pages, choose Print from the File menu.

CG/S Output

You can use several methods to send your completed layouts to the output channel.

One-Off Titles

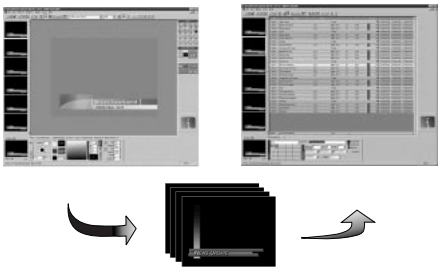
You can use CG/S to create layouts that are displayed, or recorded to tape or digital disk, and then discarded.

When used this way, CG/S usually has one or two items in the Play List that may be saved for their formatting information, but usually one-off items are created quickly, sent to video or to tape, and then discarded.

Exported Images and Integration with Other Software

CG/S can be used as a traditional character generator that creates layouts for export. Layouts can be exported to bitmap files for display with other desktop studio software, or with Inscriber VideoCarte.

When used this way, the Play List contains all of the layouts required for a single project. Each new project is stored in a separate Play List.



These layouts can be created on a machine that is not equipped with a frame buffer and then exported for playback to a machine with a frame buffer.

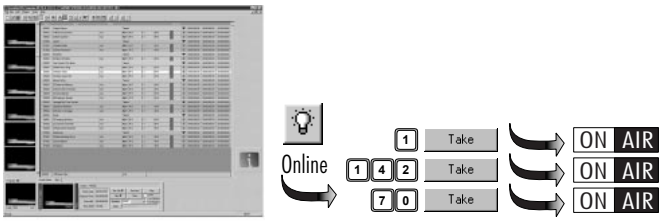
Sequencing, transitions, and other effects are controlled by the desktop studio software.

Random Access Display

Randomly displaying selections from a collection of several dozen stills, like those needed for a series of lower third supers, is handled in the Run tab.

You can select specific layouts to send to video by entering an event number in the Run tab and clicking on Take on the Run tab to send the selected event to the program channel.

You can also use the optional Shotbox hardware for this type of output.

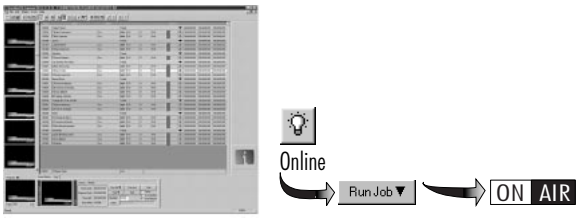


Sequenced Presentation

The Sequencer module manages and controls all online activity, including takes, transition, trigger information, and board assignment information. The Event List contains all of the layouts required for a job. Events are defined and sequenced in the Sequencer module.

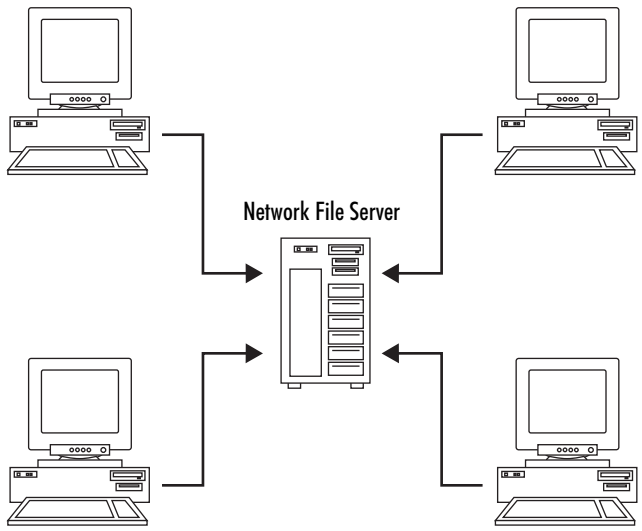
When you run the Event List, events can be triggered automatically with timecodes or duration codes, or triggered manually with the keyboard or a GPI trigger. Event groups and individual events can be triggered randomly or in sequence.

The Event List contains the layouts from the CG module and the sequencing and event definitions from the Sequencer module.



Working on a Network

Many users have multiple CG/S systems connected in a network. CG/S includes a variety of options to make this an easy task, including the ability to share common registry and font databases, the ability to limit the font display to database fonts, and the ability to render files to a specific location.



Items Not Shared

You cannot share the interlock device and the hardware used by CG/S across a network. Each local system running CG/S must have an interlock device and the proper driver installed. You can only output graphics on the frame buffers installed in the system you are running on. You cannot access a frame buffer on another computer on the network.

Sharing a Registry

The CG/S registry database saves the layout templates that appear in the Template drop-down list on the CG toolbar. By default, CG/S uses the Inscribe.reg in its startup folder as the registry database.

In a network situation, you may want to have all the systems sharing a central registry database. Edit Inscribe.ini and add a new section to the [Preferences] section:

```
Inscribe.reg=z:\shared\Inscribe.reg
```

Replace "z:\shared\Inscribe.reg" with the full path name for the registry database you want to use.

The only restriction with a shared registry is that the file is read only on startup and when you open the Registry Manager dialog. If another user changes the template registry, you cannot see the changes until you restart CG/S or go to the Registry Manager.

Sharing Resource Files

Inscriber files can be opened from any shared drive on the system. However, these files save the absolute path names for textures, logos, and backgrounds. If you insert a logo from d:\logos and then open it on another system that does not have d:\logos, CG/S cannot locate the file. When CG/S cannot find an image, it replaces the image with gray and black bars.

There are two ways to work around the problem:

- Designate a central network drive to hold all the resources you use. Create folders for logos, textures, and backgrounds and make sure all the users map those folders to the same drive letter.
- Copy the resources to CGS41\Samples. CG/S always checks this folder as a backup location when it cannot find images. This method is not efficient, because images are duplicated across the network, but is sometimes the only way to open layouts when a system has been disconnected from the network.

Inscriber Preferences

You can customize your system in a variety of ways with the settings on the General tab of the Preferences dialog. Settings are saved in Inscribe.ini so that they are maintained from one session to another.

Horizontal and Vertical Resolution

The Horz and Vert fields set the width and height of rendered images. Make sure that these values matches your frame buffer resolution. Horizontal resolution is measured in pixels, and vertical resolution is measured in scan lines. If you are working offline, you can set the resolution to any value up to 1024x1024.

NTSC or PAL

The NTSC and PAL radio buttons allow you to configure CG/S for the video standard you are using. If you create layouts in CG/S using one standard and output them on a system configured for the other, they may not look right.

Keying Type

You can choose the keying type for your system setup when you first install CG/S, but you can also change the setting at any time on the General tab. If you are using an external keyer, check your hardware manual or ask your dealer for the proper configuration. There are four available keying options:

Keying Type	Output
Internal	Produces a key signal for boards with on-board linear keying.
Internale	Produces an anti-aliased key and fill signal.
External	Produces a signal where the RGB channel contains only color information.
Externale	Produces a signal where the RGB channel contains blended text-to-background color information for keyers that need a luminance variance at the edges of characters.

Multi-Channel Operation

If you have more than one frame buffer set up on your system, enabling multi-channel operation forces your frame buffers to act as separate program channels instead of as a Preview/Program system.

Disable Board Access

Enabling this option prevents you from sending information to your frame buffer and displaying anything on your output monitor. Selecting this option does not mean that you can run CG/S without the interlock device.

Windows Gamma

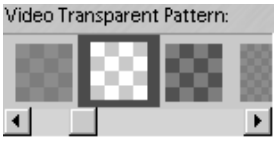
VGA (computer) monitors and video output monitors use different display methods and color gamuts. Use the Windows Gamma options to adjust the VGA display to match the video output. Set the gamma separately for the red, green, and blue channels. The default value is 1.0.

Video Dither

The dither settings apply a dither filter to improve the look of gradient fills. Choose the settings based on your current frame buffer.

Video Transparent Pattern

The video transparent or alpha background pattern represents video transparent areas of you images or layouts. Select the pattern you wish to use to identify alpha areas. This pattern is only a marker; it is not saved as part of the rendered images.



Custom Settings

The checkboxes in the Custom Settings area of the General tab allow you to customize your system to meet your specific needs. To enable an option, click in the checkbox so that a checkmark appears. To disable an option, click in the checkbox again to clear it. The options are described in the table below:

Checkbox	Outcome when selected
No Video Init on Task Switch	• prevents frame buffer initialization each time you switch back to CG/S from another application
Show Filename in Job Strip	• displays rendered filename in Play List instead of event number
Disable Text Filtering	• disables automatic blur and pixel rise-time filters applied to text characters • enable this option only when working with very small type in Inscriber fonts (.ift)
Save Uncompressed TGAs	• exports TGAs from CG/S without compressing • enable this option if you are using an older application that cannot read compressed TGAs
Use MRU Job on Launch	• opens the most recently used Play List upon program launch • this option has been permanently disabled
BMPs Default to 32 Bpp	• saves .bmps as 32-bit files • this option is for future compatibility; most applications cannot read 32-bit .bmps, so you shouldn't ever need to enable this option
Force Disk-based Takes	• force CG/S to render all images to disk, disregarding the render location set in Sequencer • this option has been permanently disabled
Silent video init	• the frame buffer start-up screen is not displayed on program launch
1:1 display aspect ratio	• image pixels are displayed on your computer screen as a 1:1 ratio instead of video-correct 4:3 or 16:9

Cache Preferences

The settings on the Cache tab allow you to set the amount of RAM available for the database caches, which affect system performance. Once your system is configured, you should not have to change these settings.

Maximum Size

The modifiable fields on the Cache tab are the Maximum Size for the Record Cache and the Node Cache. Use this field to allot the amount of RAM available to each cache.

The Record and Node Caches are mirrored caches. For every megabyte of space allotted in the Maximum Size fields, the caches actually use up two megabytes of system RAM. Because of this, it may be best to keep your cache sizes as small as possible. Increasing cache size uses up more system RAM without appreciably improving system performance of CG.

The following table provides recommended values, based on system RAM.

RAM	Record Cache		Node Cache	
	Minimum	Maximum	Minimum	Maximum
96 Mb	• 256 kb	• 2 Mb	• 128 kb	• 1 Mb
128 Mb	• 256 kb	• 4 Mb	• 128 kb	• 2 Mb
256 Mb	• 256 kb	• 4 Mb	• 128 kb	• 2 Mb

Defaults

You can reset your caches back to the default sizes with the Default button. The defaults are the optimal sizes, based on system RAM.

Cache Statistics

The non-modifiable fields below the Maximum Size fields display the Record and Node Cache statistics. These statistics tell you about current system performance. The values change over time and with the operations you are performing.

Online Output Folders

When CG/S displays a layout online, it renders it to a disk file first, and then displays the rendered file. By default, the rendered files are saved in a folder with a name that matches the Inscriber file. If you create a file called Boats.sly, the rendered files for the images in that Play List are saved in a folder called Boats.onlinefiles. If you keep rendered files for repeated use, your hard drive will quickly fill up.

Storing Rendered Images

One solution to the problem is to store all the rendered images on a large fast network drive. In the Sequencer Preferences dialog, you can designate a folder as the OnlineOuput folder. When this folder is set, CG/S creates a folder in that folder for each job that goes online. All the rendered images are centralized in one place. If you use a job that someone else rendered in the past, you can use the same rendered file for output.

In most situations, you can playback the images across the network. Jobs with very quick image changes may not be able to keep up with heavy network traffic or slow systems.

As an example, if you designate the "\CGS41_files" folder as the OnlineOutput folder, and then create three jobs, CG/S creates the following files.

Folder	Files	Contents
\CGS41		Inscriber/CG/S folder
\CGS41_files		online folder set for output files
	meridian.ins	Play List for "Meridian" saved in \CGS41 folder
	yacht.ins	Play List for "Yacht" saved in \CGS41 folder
	weather.ins	Play List for "Weather" saved in \CGS41 folder
\CGS41_files\meridian.onlinefiles		folder to hold rendered images for "Meridian" Play List
	1.vii, 2.vii, 3.vii, 4.vii	images from "Meridian" Play List
\CGS41_files\yacht.onlinefiles		folder to hold rendered images for "Yacht" Play List
	1.vii, 2.vii, 3.vii, 4.vii. 5.vii, 6.vii, 7.vii	images from "Yacht" Play List
\CGS41_files\weather.onlinefiles		folder to hold rendered images for "Weather" Play List
	1.vii, 2.vii, 3.vii, 4.vii. 5.vii	images from "Weather" Play List

Inscribe.ini

CG/S checks Inscribe.ini for information about your video hardware and system configuration. This file is located in your main CG/S folder. Each entry in the INI file belongs in a specific section; if you move it, CG/S will not be able to find the entry and may behave in unexpected ways.

Editing Inscribe.ini

In most cases, you do not have to edit this file. Some of the values are set by the installation program; others can be changed in the Preferences dialog. If you need to edit the file directly, make a copy of the file so that you can always revert to your last working configuration.

There are several typographic conventions in all INI files. Section labels are enclosed in square brackets. CG/S uses section labels to locate specific settings—don't change them. Comment lines start with a semi-colon (;). CG/S automatically ignores everything on a line after the first semi-colon.

```
[Comments Section Label]
;This line is a comment. In the next line, the comment starts with "Use".
KeyingType=EXTERNAL              ;Use a downstream keyer
```

Inscribe.ini Main Sections

The table below provides a description of the main sections in the CG/SINI file. Your INI file may contain other sections as well.

Section	Contents
[Configuration]	Basic hardware configuration options for your frame buffer boards.
[Preferences]	Program customization options.
[Job List]	References to the last five Inscriber files you used.
[GPITrigger]	Port information for a GPI remote trigger.
[TimeCodeReader]	Setup strings for a timecode reader.
[File Reader]	Directory and search options for the Open Image dialog.
[IFT Preferences]	Font Manager settings.

CG

CG is a full-featured character generator that lets you create layouts for stills, rolls, crawls, and reveals for display to video. It offers extensive typographic and color controls for design flexibility, producing text characters that are always fully anti-aliased and broadcast quality.

In this Section:

Layouts 46-57
Backgrounds 62-69
Text Objects 76-85
Color, Transparency, and Gradients 72-99
Textures 130-137
Graphic Objects 138-149
Logos 150-153
Templates 154-157
News Edit 158-167
Subtitles 168-173

CG—Interface Overview

CG is a full-featured character generator that lets you create layouts for stills, rolls, crawls, and reveals for display to video. It offers extensive typographic and color controls for design flexibility, producing text characters that are always fully anti-aliased and of broadcast quality. There are seven main CG components: the CG Editor, the Attributes tabs, the Formatting palette, the CG toolbar, the Play List, the Scrapbook, and the right-click menu.

Switch to CG

To switch to the CG module click on the CG button located on the CG/S toolbar.

CG Editor

Layouts are created in the CG Editor. Text and graphic tools let you enter lines of text and create graphic objects to use as background for your text. The CG Editor shows you what your layouts look like as you work.

You can use several different techniques to speed up your work in the CG Editor. See "Speeding Up Your Work" on page 42 for details.

CG Toolbar

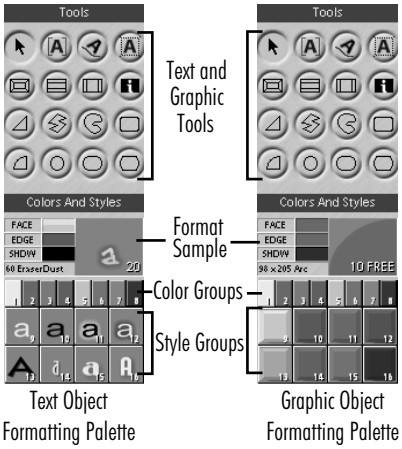
The options on the CG toolbar let you select templates and layout types, change layout settings, switch between text and graphic layers, and move both the text insertion point and lines of text.

Attributes Tabs

The options on the Attributes tabs control the appearance of both the workspace and your text and graphic objects. You can modify your text and graphic objects, style groups, change layout backgrounds, and access logos and news edit. To display the contents of a tab, click on the tab name.

Formatting Palette

The tools on the Formatting palette give you a quick way to access text and graphic tools, color groups, and style groups. The text and graphic tools let you select what kind of text or graphic object you want to create. You can use the style and color groups to apply styles and colors to text and graphic objects. Style and color groups can also be modified based on the selected text or graphic objects.



The Formatting palette changes slightly depending on whether you are working on a text layer or a graphic layer. See "Using the Formatting Palette" on page 40 for details.

Play List

The Play List is a palette that contains image thumbnails of the events in the Event List. In CG, the Play List is used to view thumbnails and create new layouts.

Each layout is an event in the Play List. As you work on a layout, the thumbnail in the Play List is automatically updated to reflect your changes. Click on the next thumbnail in the Play List to work on a new CG layout. See "Using the Play List" on page 12 for details.

Scrapbook

The Scrapbook lets you transfer layouts, images, and formats between layouts, Play Lists, and other CG/S modules. See"Using the Scrapbook" on page 16 for details.

Right-Click Menu

The right-click menu contains all of the menu items in the Element menu and can be accessed in the CG Editor. Use this menu to position objects on layers, and to change some of the text constrain and align options.

To display the right-click menu, position the mouse pointer anywhere on the CG Editor and press the right mouse button.

Floating Palettes

All of the palettes in CG, including the Attributes tabs, the Play List, and the Formatting palette, can be converted to floating palettes by dragging them anywhere on the screen. CG/S resets all floating palettes to their default positions whenever you exit the program.

Utilities

CG/S comes with a number of utility programs, stored in the Utilities folder on the CG/S CD ROM. See the readme file or the Utilities folder for details.

View the CG Workspace

The Zoom, Alpha, and RGB options on the View tab let you change which aspects of a CG image are displayed in the workspace.

1 Switch to the View tab and click on the up and down arrows beside the Zoom field to select a zoom level from one to eight. The higher the value that you select, the larger the zoom factor.

   The video transparent fill pattern is also enlarged when you zoom in on a layout.

2 Use the standard Windows scroll bars to view sections of the workspace that are no longer visible.

3 Click on Show RGB (Fill) to display the anti-aliased fill signal for the current layout. Transparent areas display a transparency pattern.

4 Click on Show Alpha (Key) to display the key signal for the current layout. Video areas are displayed as black, non-alpha areas are displayed as white, and semi-transparent areas are displayed as gray.

Changing the zoom factor or selecting either RGB or Alpha doesn't affect video output. The output is always determined by the keying setting and your video hardware.

Importing and Exporting

CG lets you import layouts, text files, News Edit tables, Subtitle EBU files, ICG files, and animations. You can also export layouts, IPS files, images, sequence text files, subtitle text files, ICG files, and Subtitle EBU files. See the following topic for details on importing animations.

All of the import and export options are found in either File→Import or File→Export.

Import and Export Layouts

You usually export a layout when you want to transfer it to another computer running CG/S. Inscriber tries to maintain compatibility between versions of software, but because of feature and platform changes, compatibility cannot always be guaranteed.

The Import Layout and Export Layout options let you import or export a single layout from a play order. Exported layouts have a .sly extension, and you can only import layout files with a .sly extension. Exported layouts are not rendered files; instead, they contain the information that allows CG to recreate the layout when you import it.

Exported layouts maintain references to graphics, which means that when you import the layout, CG expects to find graphics in the original location. If you don't have your graphics in the same location, you can move the necessary graphics to the samples folder under the CG/S program files. CG looks in the samples folder if it can't find graphics in their specified location.

Graphics that were placed in the layout from the Scrapbook and not saved on disk are saved in the layout when you export it. File size increases dramatically when graphics are saved in the layout file.

Import and Export ICG Files

The .icg file format allows files to be transferred between Inscriber and Inscriber-compatible applications. An .icg file contains an image thumbnail, a fully rendered image, and the layout information.

Files exported in .icg format are editable in CG when you import them.

Import Text Files

Text files are imported into the selected line at the current cursor position. CG understands end of line markers when you import a text file, unless you are importing text for a crawl. Text is formatted using the current style and color groups.

Imported text files must be in plain text format (ASCII, ANSI, MS-DOS text, etc.).

Import News Edit Tables

News Edit tables are imported into the 0 Import Text slot. CG respects end of line markers when you import a News Edit table.

Generally, News Edit tables are used when you want to import formatted text using the News Edit special characters, or you want to rearrange the text as you place it in the layout. News Edit tables are not automatically added to the registry. Once you add a News Edit table to the registry, all the information in the table is sorted alphabetically. See "Understanding News Edit" on page 158 for details.

Export IPS Files

Export IPS Files exports the layout as IPS code, which is readable by Inscriber RTX 2.0 or higher. Unless you are using RTX, you do not need to export files in this format.

Export Images

Export Images lets you export a rendered image of the current layout in a variety of bitmap formats. You can select an image type from the drop-down list on the Export Images dialog. These exported files can then be imported into other graphics packages, including Logo Compose or imported into other software, including animation or paint software. You can also import these image files back into CG/S, but the layouts are no longer editable.

Export All Images lets you export rendered images of all layouts in the Play List.

Export Sequence Text Files

A sequence text file is a Play List in text format which cannot be re-imported. Sequence text files contain all of the information from the Event List, including the time of each event, the name of each file, the type of transition, etc. These files are generally used as log files for reporting purposes.

Import and Export Subtitle Files

You can import and export subtitle files in both text and EBU N19 format. See "Import Subtitle Files" on page 170 for details on importing and exporting subtitle files.

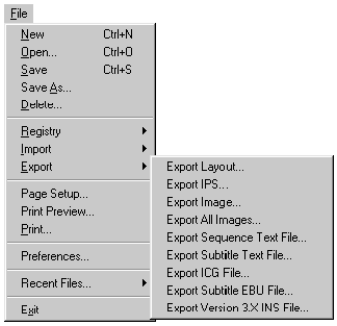
Import and Export Layouts

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and switch to the graphic layer.

2 Switch to the Size & Attributes tab and select Rectangle from the Graphic Type drop-down list.

3 Select File→Export→Export Layout and save the file as Layout.sly.

4 Select File→Export→Export Image and select Bitmap as your file type. Save the file as Layout.bmp.



5 Select File→Export→Export ICG File and save the file as Layout.icg.

6 Click on an empty slot on the Play List and select File→Import→Import Layout.

7 Select Layout.sly and click on the rectangle and change the Vertical value to 300.

8 Click on an empty slot on the Play List and select File→Import→Import ICG File.

9 Select Layout.icg and click on the rectangle and change the Vertical value to 300.

10 Switch to the Background tab and click on the Image box on the Background tab.

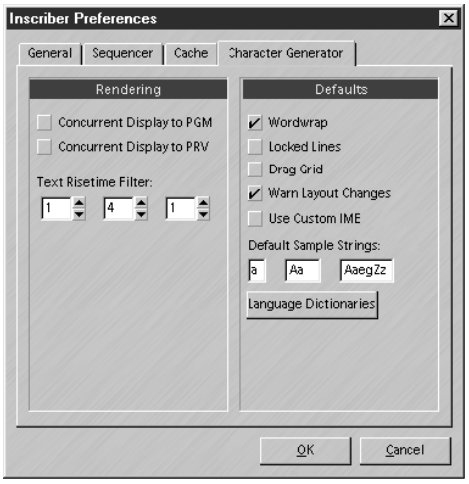
11 Select Layout.bmp as your background image and click on OK. You cannot select the rectangle in the Layout.bmp file.

Setting CG Preferences

You can use the Preferences dialog in CG/S to change some of the Character Generator and Font Manager options. Select File→Preferences to open the Preferences dialog, and then click on either the Character Generator or the Font Manager tab.

Character Generator Tab

The Character Generator tab lets you change the rendering and default settings for text and graphic object generation.



Concurrent Display to PGM toggles the size and movement display on and off. If you select this option, CG displays the entire text line when you drag the object boundaries. If you do not select this option, you see only the bounding box outline when you move or scale a text element or graphic object. Selecting this option adds significantly to the processor demands CG makes.

Concurrent Display to PRV enables a preview of the frame buffer monitor. If you select this option, CG renders the current layout to the frame buffer when you are not performing other tasks. This is a threaded process, so you may not always see instant updates to the output. Selecting this option adds significantly to the processor demands CG makes.

The Text Risetime Filter lets you apply a gaussian blur filter to compensate for abrupt luminance changes in your layouts. The values affect the size of the blended area. The filtering is scaled to appropriate values depending on the character size. You can adjust the default values to increase or decrease the blur. All values are normalized so 5, 40, 5 is the same as 1, 8, 1. The first and last values are averaged so that 20, 50, 30 is the same as 25, 50, 25.

Word Wrap toggles the initial word wrap setting. When this option is selected, all layouts have Word Wrap turned on by default. You can reset this setting using Element→Constrain→Word Wrap.

Locked Lines toggles the default Locked Lines setting. When this option is selected, all layouts have Locked Lines turned on by default. You can override this setting using Element→Constrain→Locked Lines.

Drag Grid toggles the default grid alignment setting for graphic objects. When this option is selected, all layouts have Drag Grid turned on by default and all layout elements snap to the grid. See “Use the Grid” on page 146 for details.

Warn Layout Changes toggles a warning message when you choose a new template. If you select this option, CG reminds you that choosing a new template deletes the current layout, and lets you copy text changes from the layout you are

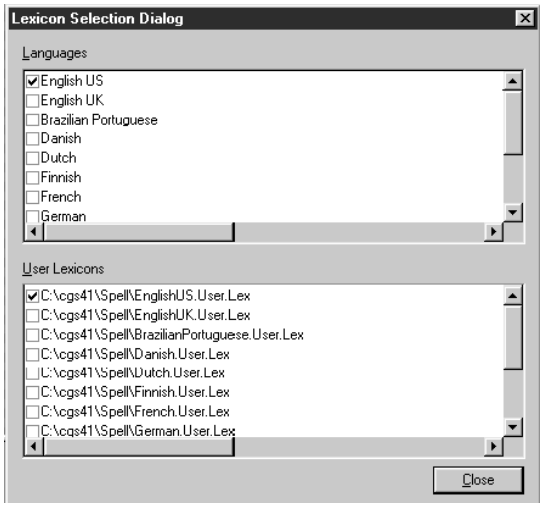
replacing to the new layout. If you do not select this option, choosing a new template replaces the current layout without any warning.

Use Custom IME lets you edit double-byte text directly in the CG workspace. You must have the appropriate version of the operating system in order to use double-byte text. If Use Custom IME is not checked, you can only use the standard IME that comes with your operating system. On some systems, direct entry of text into CG may be slower than using the system IME.

Default Sample String sets the default text string displayed on the Formatting palette, the Styles tab, and the Font Browser.

Language Dictionaries

You can click on the Language Dictionaries button to select other languages for the Spell Checker. You can have more than one active language at a time.



The Lexicon Selection dialog lets you select languages or user lexicons. The languages are identified by name and the user lexicons are identified by filename.

When you have selected all of the languages and lexicons that you want to have available to the Spell Checker, click on Done to return to the Preferences dialog.

Change Font Sample Strings

1. Select File→Preferences and click on the Font Manager tab.
2. Replace the text in the Sample Text String box with "Test String" and click on OK.
3. Select Tools→Font Manager and click on a font in the Fonts List. The sample text that appears now says "Test String". Close the Font Manager dialog.
4. Select File→Preferences and click on the Character Generator tab. Now, change the first default sample string to "g", change the second default sample string to "Gy", and change the third default sample string to "AefpkY". Click on OK. The letter in the Format Sample on the Formatting palette has changed to "g".
5. Switch to the Styles tab. The sample characters have all changed to "Gy".
6. Switch to the Size & Attributes tab and click on Browse. The sample strings for each font have changed to "AefpkY"

   You can change these sample strings to any characters that help you choose fonts more effectively, including punctuation characters.

Using the Formatting Palette

The Formatting palette, located near the upper right corner of your screen, gives you a quick way to access text and graphic tools, color groups, and style groups. It also provides you with information about the current text or graphic object. The Formatting palette changes slightly depending on whether you are on a text or graphic layer. See the graphic on the next page for details on these changes.

Text and Graphic Tools

The text and graphic tools let you select what kind of text or graphic object you want to create. Most of the common text and graphic tools are represented on the Formatting palette.

Icon	Name	Icon	Name
	Move		Wedge
	Text Cursor		Polygon
	Text Path		Spline
	Text Box		Clipped Corner Rectangle
	Rectangle		Arc
	Horizontal Panel		Oval
	Vertical Panel		Round Rectangle
	Logo		Round Corner Rectangle

Format Sample

The format sample shows you some of the attributes of the current object.

The number in the lower right corner of the sample area tells you what style or color group the current object belongs to. If the Freeform option is on for the group, the word FREE appears after the number at the bottom of the sample. The format sample also tells you the height and font of text objects, and the size of graphic object.

Style and Color Groups

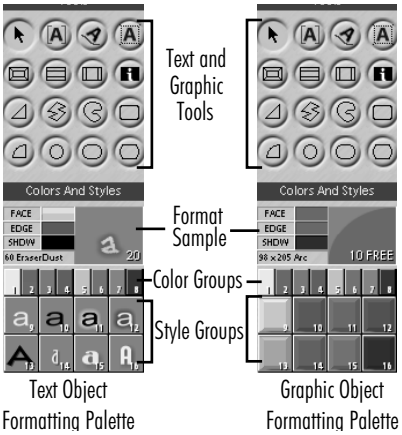
You can use the style and color groups on the Formatting palette to apply styles and colors to text and graphic objects. Style and color groups can also be modified based on the selected text or graphic objects. The Formatting palette changes slightly depending on whether you are on a text layer or a graphic layer

To apply a style or color group to an object, click on the object and then click on the color chip of the style or color group.

All text and graphic objects must belong to either a style or a color group. Style groups save all formatting options for an object, including options set on the Color & Texture tab and on the Size & Attributes tab (font, height, width, shadow size, edge type, etc.). Color groups only save options set on the Color & Texture tab. See "Understanding Text Color" on page 94 for details on using the Color & Texture tab.

The Formatting palette lets you access the 8 color groups and 8 of the 24 style groups. All the style groups can be found on the Styles tab. Color groups are numbered from 1 to 8. Style groups are numbered from 9 to 32.

Whenever you make a change to an object, any other objects in the layout that share the same style or color group are updated. Objects that share a color group can have different options selected on the Size & Attributes tab.



Copy Style and Color Groups

The following chart explains what attributes are carried over when you copy styles and colors among the style and color chips and the format sample.

1. Click on a style or color chip, or the format sample.
2. Drag to the style or color chip you want to copy attributes to.

Source	Target	Result
color group	color group	colors and textures copied
style group	style group	formatting, colors, and textures copied; press CTRL to copy only colors and textures
style group	color group	colors and textures copied
color group	style group	colors and textures copied; press CTRL to copy formatting of current line as well
format sample	color group	color and textures copied
format sample	style group	formatting, color, and textures copied

Speeding Up Your Work

Short cut keys let you use features and commands without having to select them from a menu. NP refers to keys on the number pad.

Working Within & Across Layouts

CTRL+N	Create a new Play List	CTRL+D	Redraw screen
CTRL+L	Create a new layout	CTRL+Z	Undo the last action
CTRL+O	Open an existing Play List	CTRL+A	Redo the last action
CTRL+E	Opens layout type list	CTRL+R	Opens registry layout template list
CTRL+SHIFT+R	Opens layout registry dialog	CTRL+S	Save the current file
NP ENTER	Take event	CTRL+HOME	Jump to first line in layout
CTRL+END	Jump to last line in layout		
ALT+arrow	Nudge text or graphic object one scanline or pixel in any direction		
ALT+CTRL+arrow	Move text or graphic object ten scanlines or pixels in any direction		
ALT+SHIFT+arrow	Move text or graphic object up or down one object height		

Combining Mouse & Key Strokes

CTRL+CLICK	In a multiple selection dialog: add the current item to the list
CTRL+SHIFT	In a multiple selection dialog: add items between previous item and current item to the line
CTRL+DRAG	On text line: move tab-constrained text vertically, moves non tab-constrained text vertically and horizontally On Formatting palette: copy only the color attributes of a style chip In Play List: move event instead of copying it
RIGHT-CLICK	On Scrapbook: call Scrapbook menu In CG Editor: call floating element menu On Formatting palette: call a list of style options
DOUBLE-CLICK	In any number field: return the value the default
SHIFT+CTRL+DRAG	On text or graphic object: move to higher or lower layer

Formatting Graphic Objects

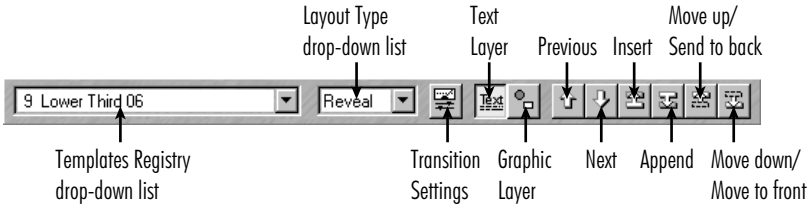
CTRL+F	Bring object to front of overlapping objects
CTRL+B	Send object to back of overlapping objects
SHIFT+DRAG	Force a 1:1 aspect ratio while resizing
CTRL+DRAG	Force a 4:3 aspect ratio while resizing
SHIFT+CTRL	Maintain proportions while resizing
SHIFT+CTRL	Move object to new layer (hold down keys, click and drag on object)
DOWN arrow	Select previous graphic object
UP arrow	Select next graphic object
CTRL+SPACEBAR	Add spline/polygon control point
CTRL+BACKSPACE	Remove spline/polygon control point

Formatting Text

CTRL+X	Remove text, put it in clipboard
CTRL+C	Copy text to clipboard, leave original text in place
CTRL+V	Insert contents of clipboard into current line, starting at cursor
ALT+V	Switch to and from vertical text processing
CTRL+TAB	Toggle between tab-constrained and non-tab-constrained text
CTRL+MINUS	Decrease kerning between letters on either side of cursor
CTRL+PLUS	Increase kerning between letter on either side of cursor
CTRL+CLICK	On Move Up/Down buttons: move text line up/down 10 scan lines
SHIFT+CTRL	On Move Up/Down buttons: move text line up/down 1 scan line
DELETE	Remove selected text; if none selected, remove character to right of cursor
CTRL+SPACEBAR	Add spline control point
CTRL+BACKSPACE	Remove spline control point
CTRL+K	Rotates selected text 90 degrees

Use the CG Toolbar

The CG toolbar appears when the CG Editor is active within CG/S, and lets you access the Templates registry and layout type, switch between text and graphic layers, and position objects in the layout.



To use the positioning tools, click on a graphic object and then click on a button on the CG toolbar.

Switch Between Layers

CG lets you hold down CTRL and click on an element of the layout to select that element. You can click on text lines, graphic objects, or the background.

When you hold down CTRL and click on the background, CG automatically changes to the Background tab. When you hold down CTRL and click on either a text or graphic object, CG automatically selects the object and switches to the Color & Texture tab.

If you have text and graphic objects on several layers, using this method of selecting objects only works for the text and graphic objects on the current layer. For example, if you are working with objects on layer 3, objects on other layers cannot be selected using this method.

Non-Tab-Constrained Lines

You can change text lines from tab-constrained to non-tab-constrained using CTRL+TAB. Select the text line and press CTRL+TAB. To change the line back, press CTRL+TAB again. See “Manipulating Text Lines” on page 116 for details on tab- and non tab-constrained lines.

CG Concepts

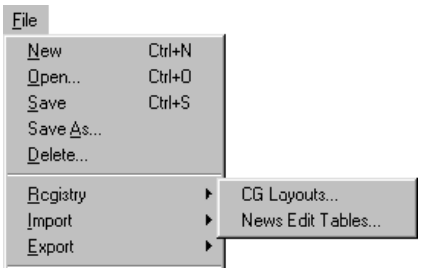
In order to use CG effectively, you need to understand these three concepts: registries, templates, and style and color groups.

Understand Registries

Registries are libraries of commonly used layouts or text. CG has two registries, the Templates registry and the News Edit registry.

The Templates registry contains all of the standard layout templates available to you in CG. The News Edit registry contains all of the News Edit tables (lists of names, places, and other information) that are available to you in CG.

There are two aspects to using registries: managing the registries themselves and using the contents of the registries.



Registries can be managed using File→Registry→CG Layouts or File→Registry→News Edit Tables. Selecting one of these commands displays the main dialog for managing the contents of a registry. Each registry is managed separately, although the registry dialog looks the same for each registry. See "Using Templates" on page 156 for details on managing the Templates registry. See "Using the News Edit Registry" on page 166 for details on managing the News Edit registry.

When you first begin using CG, the Templates registry contains the standard layouts shipped with CG/S, and the News Edit registry contains the 0 Import Text table.

Note that if you reinstall CG/S in an existing folder, your registry settings will not change. If you want to use registry settings available with a new release of CG/S, you must install in a new, empty folder.

You can delete any templates or news edit tables from the registries. If you delete the default template from the Templates registry, CG creates a new default template that is different from the original template shipped with CG/S.

You can access the templates stored in the Templates registry drop-down list on the CG control bar. See the information below for an overview of using templates, or "Understanding Templates" on page 154 for details on using templates.

You can access the News Edit tables stored in the news edit registry from the News Edit tab. See "Understanding News Edit" on page 158 for details on using News Edit.

Understand Templates

Templates are important in CG because every layout is based on a template. Most layouts are based on the 0 Default Template. Some users never need to use any other template, but other users may need to design many different templates to handle their needs.

Templates let you create and save standard layouts. These layouts can be used over and over again, and are ideal for those situations where you have a basic layout with one or two elements that change often.

Once you have created a standard layout, you can save it as a template. The next time you need to use the layout, select the template from the Templates registry, make any necessary changes, and save the modified layout.

Templates include anything you put in a layout, from a simple lower third definition to a complex layout full of logos and other graphic objects. You can define logos, colors, graphic styles, and text styles in a template, so that any layout created from a specific template always uses the same settings. See "Understanding Templates" on page 154 for details.

Create a New Layout

In CG, you can create new layouts based on the selected template by clicking on the next blank thumbnail in the Play List, or by pressing CTRL+L.

Style and Color Groups

Style and color groups are important in CG because every text element or graphic object must belong to either a style or color group. Text and graphic objects do not share style and color groups. Each type of object has its own set of 24 style groups and 8 color groups.

Objects that share a color group share color and texture definitions but no other formatting. Objects that share a style group share color, texture, shape, shadow, and edge formatting. Text elements (not graphic objects) that share settings for a style group also share text width and height.

Create a Layout from a Template

1. Click on the first blank thumbnail in the Play List to create a new layout. Select a template from the Templates registry drop-down list in the CG toolbar.

   All text and objects contained in the template are displayed.
2. Select another template from the Templates registry drop-down list.

   All of the elements of the first layout are overwritten with information from the new template.

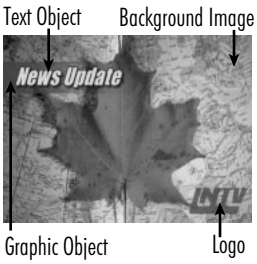
3. Press CTRL + L to create a new layout using the current template.
4. Select a different template from the Templates registry drop-down list to overwrite the current layout with new template information.
5. You can switch between layouts without affecting them by clicking on the first thumbnail in the Play List
6. Save the Play List contents by selecting File→Save.
7. Select File→New to close the current Play List and open a blank Play List.
8. Open the saved Play List by clicking Open on the main toolbar and selecting the filename you saved the Play List under.

Working with Layouts

A layout consists of all of the components of an output screen. In CG, you combine various elements to create layouts. These layouts are then output to video.

Layout Components

Layouts consist of three aspects: text objects, graphic objects, and backgrounds.



Text objects are made up of text lines. Each text line is treated as a separate object, although you can group lines of text. See "Understanding Text Objects" on page 76 for details on text objects.

Graphic objects are made up of various graphic shapes, such as rectangles and circles. Each graphic object is treated as a separate object, and graphic objects can't be grouped. See "Creating Graphic Objects" on page 138 for details.

Logos are a special class of objects, and can be used as either text or graphic objects. Logos are imported images that contain alpha information. See "Logos" on page 141 for details on understanding and using logos in a layout.

Backgrounds can consist of live video backgrounds, colored backgrounds, patterned backgrounds, and background images. The default background is video transparent, but you can block the video signal with other types of backgrounds. See "Understanding Backgrounds" on page 62 for details on backgrounds.

Enter Text

Entering text is the starting point for most of your work in CG. When you first open a layout, you see square brackets with a cursor flashing between them or a white rectangle with a cursor flashing inside it. The brackets indicate the selected text line, and the cursor shows you where the text that you type will be inserted.

If you don't see the brackets and cursor, you can select the Text Cursor tool from the Formatting palette and click on the CG Editor to show the text insertion point.

To enter text, click on the CG Editor and start typing. By default, CG wraps the text to the next line when you run out of space. However, if you want to move text back to a previous line, select the text you want to re-flow and then select Element→Re-Wrap Selection. If you delete text from one line, text from subsequent lines is not reformatted to fill the available space unless you re-wrap the selection. See "Understanding Text Objects" on page 76 for details.

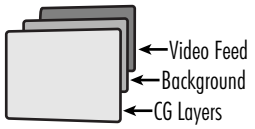
Move Text and Objects with the Move Tool

Use the Move tool on the Formatting palette to move tab-constrained text up or down and non tab-constrained text anywhere in the CG Editor. Click anywhere in the text line to enter text. When you press the Graphic Plane button on the CG Toolbar to switch to the graphic layer, the Move tool is selected by default. Click and drag an object to another location. You can also hold CTRL and drag to move text in the CG Editor.

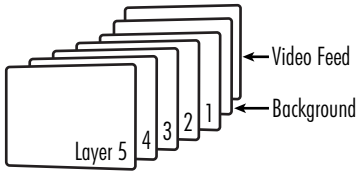
Work with Layers

Layers allow you to overlap text and graphic objects.Each layout consists of ten CG layers, a background layer, and a video layer.

The CG layers contain all of the text, graphic, and logo elements in your layout. The background layer contains all of the components making up your background, including still images, colors, patterns, and video transparent areas. The video layer contains the live video feed that your CG layout is placed on top of, and is represented in CG/S by the video background transparency pattern.

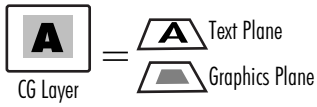


The more detailed graphic of the various CG layouts on the right shows you the order of layers in any CG layout. Each CG layer overlaps the one behind it, allowing you to create complex layouts by overlapping text and graphic elements on different layers. Element→Layer Control→Layer List displays the Layers dialog, which can be left open as you work on layouts. You can use the Redraw button on the Layers dialog to redraw the layout if you have made many editing changes.



Work with Planes

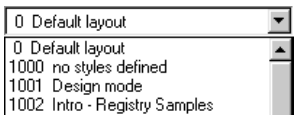
Each CG layer is divided into two planes, a text plane and a graphics plane. Text and graphic objects always appear on separate planes, with the text plane on top of the graphic plane on the same layer. If you want to place a graphic object or a logo on top of a text object, make sure the text is on the layer below the graphic object. Switch between planes by clicking on the Text or Graphic Plane buttons on the CG toolbar.



Graphic planes have an additional feature, called a stack. The stack lets you overlap graphic elements on the same layer. See "Transparency, Gradients, and Layering" on page 148 for details on using the stack.

Modify a Layout

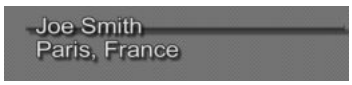
1. Click on the first blank thumbnail in the Play List and select Lower Thirds 8 from the Templates registry drop-down list on the CG toolbar.



2. Click on the Text Plane button on the CG Toolbar. You should see the word Name on the layout surrounded by white brackets, and a flashing cursor in front of the N.

3. Use the DELETE key to delete the word "Name". Now, type your own name on the blank line.
4. Click just in front of the word "Location" and drag to the end of the word to select the entire word and press the DELETE key to delete the word "Location".
5. Type the name of a city and country and click the Graphic Plane button on the CG Toolbar. You should see the thin red rectangle surrounded by a bounding box with six small black squares, called handles.

6. Click on the rectangle and drag it up slightly, so that it is vertically centered behind your name. Your lower third should look like this:



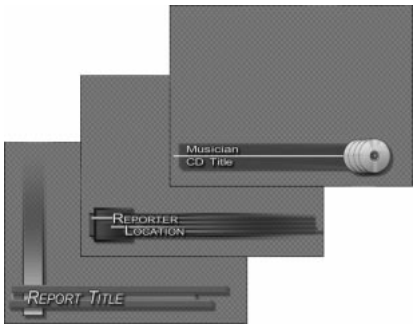
Choosing a Layout Type

The layout type determines how your work displays on video. You can choose one of four different layout types, depending on what you need to do. The layout types are: still, roll, crawl, and reveal.

A fifth layout type, animation, lets you turn a CG layout into an animation in the FX module. You need the Xtreme option available from Inscriber to run FX. The animation layout type is not discussed here.

Stills

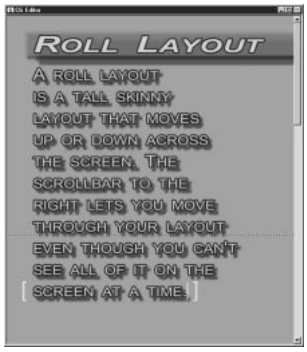
Still layouts are static screen images that contain text and graphic objects on top of a background. Some common types of still layouts are lower thirds, corner logos, and full screen layouts.



The Templates registry contains templates for many of these types of layouts. The graphic to the right shows you three of the default lower third layouts. See "Understanding Templates" on page 154 for details on the Templates registry.

Rolls and Crawls

Rolls scroll text and graphic objects up or down on a static background. Generally, rolls are used for credits or other instances where you want text and graphic objects to scroll vertically over either a video feed or a solid color background. Roll layouts use a dotted white line to indicate page breaks. These lines don't affect the way the roll is displayed, they simply divide the file visually to make it easier to work with.

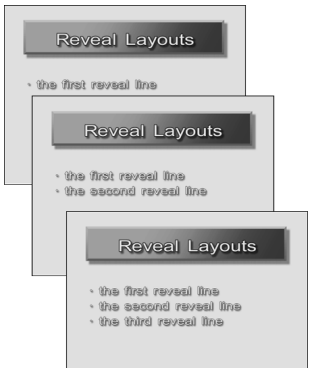

Roll Layout
A roll layout is a tall skinny layout that moves up or down across the screen. The scrollbar to the right lets you move through your layout even though you can't see all of it on the screen at a time.

Crawls display a running line of text, such as an announcement or warning, across the screen. Crawls are not limited to a single line of text and can be placed anywhere on the layout. You can have as many lines of text crawling across the screen as you want. Crawl layouts do not use dotted lines to indicate page breaks; the text simply continues across the layout, and scroll bars appear on the CG Editor so you can scroll horizontally to see long lines of text.

Reveals

Reveals display the text in a layout one line or character at a time on top of a static background. Reveals are often used to display bulleted lists, or to add text on top of a static image.

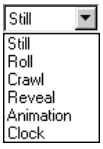
Any text to be revealed must be placed on text layer 5. Any text on layers 1 to 4 and 6 to 10 is treated as part of the background when the image is taken to video. To move text up or down a layer, select Layer Control→Push or Pull from the Element menu. Push moves text to a lower layer; Pull moves text to a higher layer. See "Manipulating Text Lines" on page 116 for more information.



Layout	Description
Still	static text and graphic objects on a background
Roll	scrolls text and graphic objects up or down on a background
Crawl	scrolls text and graphic objects side to side on a background
Reveal	displays text one character or line at a time on a static background
Clock	real-time digital clock on a still background

Choose a Layout Type

1 Click on the Layout Type drop-down list on the CG toolbar to view layout types. If you select Roll, make sure that Word Wrap is on, so that text lines wrap to the next line if there isn't enough space for a word at the end of a line.



If you select Crawl, make sure that Word Wrap is off, so that lines of text do not wrap to the following line but continue horizontally across the layout. By default, Word Wrap is turned off whenever you select a crawl layout.

If you select Reveal, make sure that all of the text you want revealed is on layer 5. Any text not on layer 5 is treated as part of the background and appears with the background.

2 Click on the Settings button to change the settings for a layout type.

3 Select Roll from the list of layout types and select Element→Constrain→Word Wrap so that text lines wrap to the next line if there isn't enough space at the end of the line.

4 Type a few lines of text to see how Word Wrap works. Click on a blank spot in the Play List and select Crawl from the layout type drop-down list. By default, Word Wrap is off whenever you select a crawl layout.

5 Type a few lines of text. The text does not wrap.

6 Click on a blank spot in the Play List and select Reveal from the layout type drop-down list. Now, switch to Layer 4.

7 Type a line of text and press the ENTER key on the number pad. Your text is not revealed.

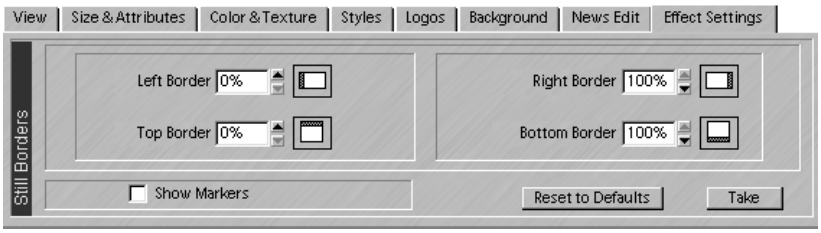
8 Move your text to Layer 5 and press the ENTER key on the number pad.

Changing Still and Reveal Settings

Still and Reveal layout settings control some of the aspects that determine how your layouts are displayed online, such as speed and borders. The settings differ depending on your layout type. You can change settings by clicking on the Effect Settings tab. The settings options for the selected layout type are displayed on the tab.

Still Settings

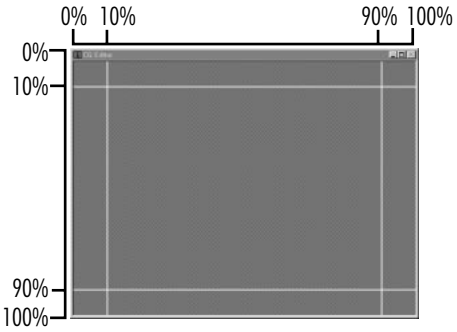
Use the Border fields on the Effect Settings tab to clip the image to a smaller area of the frame buffer. Any layout that you take to video appears only within the area defined by the border percentages. You can also use the Take button on this tab to take the current layout to video.



Border Values

Some frame buffers do not use border settings. This section is not relevant to these types of frame buffers.

The graphic to the right shows you how the frame buffer borders are measured. The top of the frame buffer is 0%, the bottom of the frame buffer is 100%; the left edge of the frame buffer is 0%, the right edge of the frame buffer is 100%. You can change the values in the border fields so that the borders appear to overlap, but CG automatically corrects the percentages so that they are at least one percent apart with no overlap.



The white line in the above graphic also shows you the area of the layout that is displayed when the left and top borders are set to 10% and the right and bottom borders are set to 90%. To see these boundaries, make sure that the Show Markers checkbox is checked on the Effect Settings tab.

By default, the borders for a still image are set to 0% and 100%, which allows the entire screen display to be taken to video. The Reset to Defaults button changes all the border values back to this default setting. Double-clicking within any of the border value fields resets that border to its default value.

Remember that anything that appears outside the boxed area is not displayed. If you have a video signal playing under your image, this will be displayed in the area outside your image borders. If you want the area outside the borders to be transparent (where you are able to see video), you may need to insert a blank layout before your cropped layout.

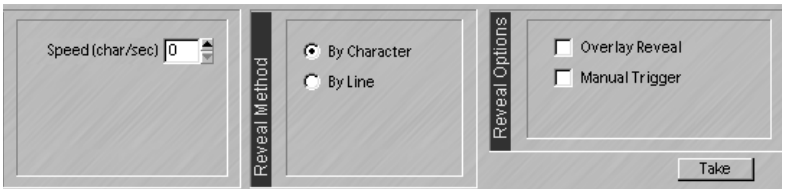
Offline Takes

You can click on Take on the Still Image Settings tab to take the current layout to video while you are offline. When CG does a take this way, your layout is sent to the program channel using a cut transition.

If you want to see the effect of a border change on a layout with a different type of transition, you need to switch to Sequencer to select a transition and view the layout.

Reveal Settings

You can set the speed and type of reveal on the Effect Settings tab. Reveal speed is measured in characters or lines per second. A speed value of zero defaults to the fastest possible display. Any other value represents the number of characters or lines displayed each second. Use the By Character or By Line radio buttons to either reveal text one character at a time or reveal text one line at a time.



The Overlay Reveal checkbox preserves the program channel contents from the previous event. Instead of displaying the background for the reveal and then the text on top of the background, Overlay Reveal maintains the previous background while displaying the contents of the current layout. When you are creating layouts for reveals, remember that all of the text lines that have already appeared must be carried over to subsequent reveal layouts. Often, it is easier to create reveal layouts by designing the final layout and then erasing lines to create previous layouts.

The Manual Trigger checkbox overrides any timing information set in Sequencer. You can use this option to do a take directly from the Effects Settings tab. If you enable the Manual Trigger checkbox, instead of using the Sequencer settings, CG/S waits for a manual trigger before taking the layout to video. See "Understanding Trigger Types" on page 196 for details on takes and manual triggers.

Create Complex Lists Using Reveals

This procedure shows you how to create lists that appear one character at a time, and look like text being typed on the screen.

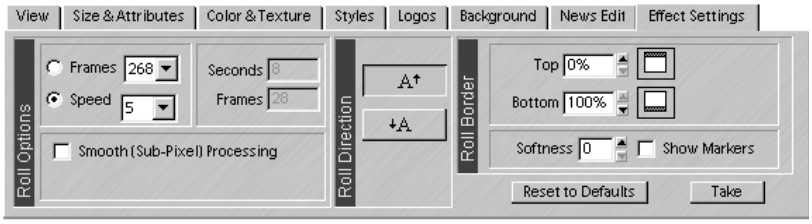
1. Select the default template from the Templates registry and switch to the Background tab.
2. Select Vertical Mold 2 from the Pattern List. You can see the name of each pattern if you place the mouse over the pattern icon in the list and wait a second for the Tool Tip to appear.
3. Select a bright, saturated red as the background color and select Reveal as your layout type from the Layout Type drop-down list on the CG toolbar.
4. In the Play List, click and drag the thumbnail of the layout down to the next empty slot.
5. Click on the first layout in the Play List.
6. Switch to text layer 5 by selecting Element→Layer Control→Layer List and clicking on Layer 5. Type a line of text.
7. Click on the second layout in the Play List and select Layer 5 in the Layers dialog.
8. Press ENTER to create a blank line, and then type a line of text.
9. Switch to the Effect Settings tab and check the Overlay Reveal checkbox and click on Take.
10. Switch to Sequencer and go online to run the job and see how the text is displayed on the background.

Changing Roll Settings

Roll layout settings control some of the aspects that determine how your layouts are displayed online, such as speed and direction. You can change Roll settings by clicking on the Effect Settings tab.

Roll Settings

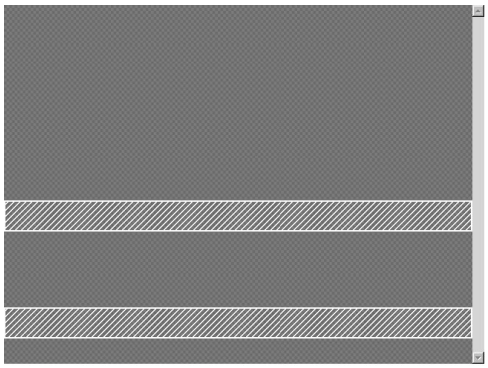
Use the Effect Settings tab to set the top and bottom borders for a roll. Any roll that you take to video appears only within the area defined by the top and bottom border percentages Border settings may differ depending on your frame buffer. Note that you can't use the Zoom option on the View tab to zoom in on a roll layout the way you can on a still layout.



Softness

The value in the Softness field blurs the text entry or exit border. Each Softness value is equal to the number of scan lines used to create the softness area at the layout border. Not all frame buffers support softness.

The graphic below shows you the softness area, identified by a box filled with diagonal lines. The size of the box changes as you adjust the number of Softness scan lines. If you leave the Softness value at zero, the border is identified by a thin white line. The Softness value has a maximum value of 100 scan lines.



Frame Values and Roll Speed

The Frames field and Speed field adjust the speed of your roll by modifying wait times. The total length of your roll doesn't change. You are simply adjusting how many frames your total roll is divided into, which affects the speed of playback. You can adjust your roll speed by setting a speed value, or by setting a frames value. When adjusting the speed value, the larger the number, the faster the speed of the roll. For example, a speed value of one creates a very slow roll; a speed value of eight creates a very fast roll.

The drop-down list of frames values changes depending on the length of your roll. For example, if you create a relatively short roll, the drop-down list contains small values; if you create a relatively long roll, the drop-down list contains larger values.

Each of the frames values corresponds to a proportionate speed. If you want to specify the number of frames your roll needs, the speed value adjusts. Likewise, if you specify the speed of your roll, the frames value adjusts.

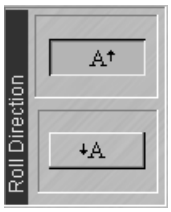
If you click on the Take button, you can test the speed of your roll. Press the PLUS (+) key on the number pad to increase test speed and the MINUS (-) key on the number pad to decrease test speed.

Sub-Pixel Processing

Smooth or sub-pixel processing is not available on all frame buffers. If sub-pixel processing is available and you click on the Sub-Pixel checkbox, your rolls will appear smooth at a wider variety of speeds.

Roll Direction

You can select the roll direction by clicking on the Roll Up or Roll Down radio buttons, but some frame buffers may only support Roll Up, especially with slow speeds.



Roll Up displays the first line of the text at the bottom of the screen and rolls it up to the top of the screen, followed by all of the other lines in the roll layout. Roll Down displays the last line of the text at the top of the screen and rolls it down to the bottom of the screen, followed by all of the lines preceding it in the roll layout.

Rolls and Word Wrap

Turning Word Wrap on for rolls makes it easier to enter text, since Word Wrap automatically wraps text to the next line when you reach the right border of the layout. You can make sure Word Wrap is on by navigating to the Element→Constrain menu. A checkmark beside the Word Wrap option indicates that it is activated.

Enter Text in a Roll or Crawl Layout

1. Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and select Crawl as the layout type from the Layout Type drop-down list.

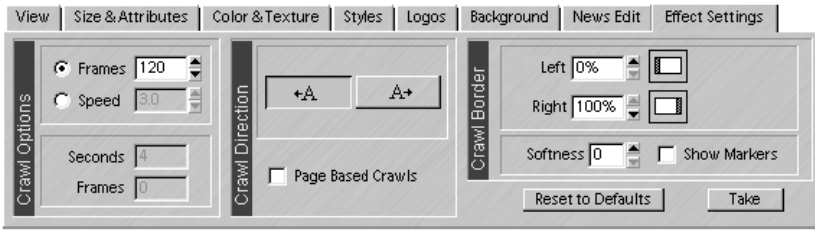
2. Click between the square brackets in the layout and select Style 11 from the Styles tab.
3. Enter this line of text on one line:
   This line of text shows you that a crawl layout does not automatically wrap words to the next line.
4. Now, press ENTER to move to the next blank line.
5. Select Roll as the layout type from the Layout Type drop-down list and select Element→Constrain→Word Wrap. If Word Wrap is already checked, don't select it again.
6. Enter this line of text, but do not press ENTER:
   This line of text shows you that a roll layout automatically wraps text to the next line as you reach the end of the current line. Roll layouts also scroll down as you continue typing.
7. Select Crawl as the layout type from the Layout Type drop-down list. You can scroll sideways, but you cannot scroll down to see the rest of the text that you entered.
8. Select Roll from the Layout Type drop-down list. You can scroll up and down, but you cannot scroll sideways to see the rest of the text that you entered.

Changing Crawl Settings

Crawl layout settings control some of the aspects that determine how your layouts are displayed online, such as speed and direction. You can change Crawl settings by clicking on the Effect Settings tab.

Crawl Settings

Use the Effect Settings tab to set the left and right borders for a crawl. Any crawl that you take to video appears only within the area defined by the Left and Right border field percentages. Border settings may differ depending on your frame buffer.

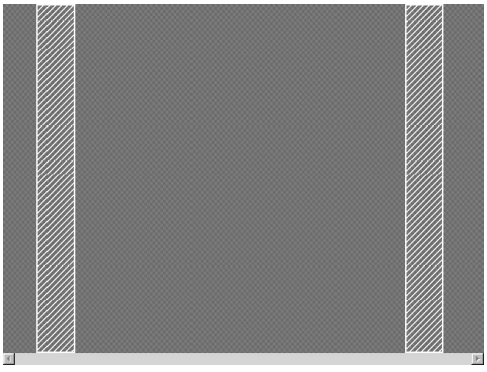


Note that you can't use the Zoom option on the View tab to zoom in on a crawl layout the way you can on a still layout.

Softness

The value in the Softness field blurs the text entry or exit border. Each Softness value is equal to the number of pixels used to create the softness area at the layout border. Not all frame buffers support softness.

The graphic below shows you the softness area, identified by a box filled with diagonal lines. The size of the box changes as you adjust the number of Softness pixels. If you leave the Softness value at zero, the border is identified by a thin white line. The Softness value has a maximum value of 100 pixels.



Crawls and Word Wrap

Turning Word Wrap off for crawls is essential, or your text automatically wraps to the next line when it reaches the right border, instead of continuing on the selected text line.

Word Wrap is automatically turned off when you select Crawl as your layout type, but you can make sure that Word Wrap is off by navigating to the Element→Constrain menu. Word Wrap is off when there is no checkmark beside it in the menu.

Crawl Direction

You can select the crawl direction by clicking on the Crawl Left or Crawl Right buttons. Check what your frame buffer will support.

Speed

The Frames field and Speed field adjust the speed of your crawl by modifying wait times. The total length of your crawl doesn't change. You are simply adjusting how many frames your total crawl is divided into, which affects the speed of playback. To decrease the speed of your crawl, you can increase the value of the Frames field or decrease the value of the Speed field. To increase the speed of your crawl, decrease the value of the Frames field, or increase the value of the Speed field. The maximum value of the Speed field is 99.9. The maximum value of the Frames field depends on the length of your crawl.

The Frames field maintains the set number of frames for the crawl, even if you modify the file length. If you add or subtract lines from your crawl, CG automatically adjusts the number in the Speed field so that the apparent speed of your crawl doesn't change when you take it to video.

If you click on the Take button, you can test the speed of your crawl. Press the PLUS (+) key on the number pad to increase test speed and the MINUS (-) key on the number pad to decrease test speed.

Page-Based Crawls

The Page-based crawls checkbox allows you to create crawls with equally spaced pages that use the same tab stops, formatting, and graphics on each page.

To create a page-based crawl, check the Page Based Crawls checkbox on the Effect Settings tab. Position the first text line for your crawl and enter your text. To switch to the next page, press CTRL + ENTER until the next page appears. You can use the PAGE UP or PAGE DOWN buttons to move, on the text layer, between the pages of a page-based crawl.

When you switch to the next page, CG remembers the position of the first text line on the previous crawl page and positions the first text line of the new page at the same place. Any object, such as a logo, inserted on the first page of a page-based crawl will appear on all subsequent pages.

Use Softness in a Crawl Layout

This procedure explains how to use Softness values with crawls, but the same techniques apply to using Softness values with rolls.

1. Select the Documentation Template from the Templates registry in the CG toolbar and select Crawl as the layout type from the Layout Type drop-down list.
2. Click between the square brackets in the layout and enter the following line of text on one line:

   This line of text shows you that a crawl layout does not automatically wrap words to the next line.
3. Click on the Settings button on the CG toolbar. Set the left border to 25%, set the right border to 70%, set the left Softness value to 25, set the right Softness value to 75, and set the Frames to 500.
4. Click on Take to do a take of the crawl and see what effect the different Softness values have on the appearance of your text.
5. Now, set the left Softness value to zero, and set the right Softness value to zero.
6. Click on Take to do a take of the crawl and see how your text looks without any Softness values.

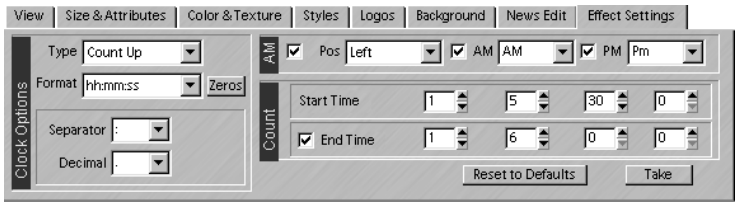
Using Clocks

A clock layout type lets you add a realtime digital clock to a layout in your Play List.

Add a Clock to a Layout

You can add a digital clock to a layout by selecting Clock as your layout type. CG automatically places a default clock on the layout. You can then use the options on the Effect Settings tab to change the placement and features of the clock.

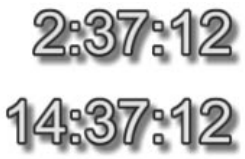
Any elements already on your layout are not changed, and you can add additional text and graphic objects to the layout after you add a clock.



Clock Types

You can select one of four types of clocks from the Type drop-down list on the Effect Settings tab. The 12hr and 24hr clocks let you display the current system time in either 12 or 24 hour format. The Count Up clock lets you start the clock at a specific time and then count up. The Count Down clock lets you start the clock at a specific time and then count down to zero.

You can start or end the Count Up and Count Down clocks at zero, or enter a specific time for their start and end times. Both the start and end times are set at zero by default. To change the end time, you need to select the End Time checkbox and then change the numbers in the end time fields.



Clock Formats

You can select any combination of hours, minutes, and seconds for your clock display. You can display hours, minutes, and seconds separately or in combination. The Format drop-down list shows you all of the possible options.

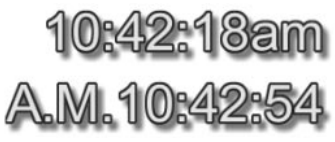
If you check the Show Leading Zeros checkbox, you can add leading zeroes to the hours figure of the clock so that the hours, minutes, and seconds are always two digits wide.

Separators

You can select any separator from the Separator drop-down lists. The separator is the character that divides the hours, seconds, and minutes from each other.

AM and PM Designations

You can add AM and PM designators to your clock by checking the Pos checkbox on the Effects Settings tab. You can place the AM and PM designators on either the left or the right side of your clock. The AM and PM



drop-down lists let you select the format that AM and PM appear in. You can also choose to display only one of AM or PM, or display them both at appropriate times by checking the checkbox beside both AM and PM.

Take a Clock to Video

When you do a take of a clock, the clock is sent to your program channel and begins to show the correct time, incrementing in seconds or minutes or hours, depending on what you select. Because the clock is running in realtime, you can't continue to edit other layouts in CG. In order to stop the take, press ESC. CG stops incrementing the clock and lets you continue to edit layouts and perform other functions in CG/S.

Countups and Countdowns

Countups and countdowns work differently than other clock types when you do a take. The countup or countdown starts at the start time that you enter on the Effect Settings tab, and runs to the end time that you enter. Once the end time has passed, CG automatically stops displaying the clock on your program channel and lets you continue to edit layouts and perform other functions in CG/S.

Clock Attributes

Inscriber recommends that you use mono-spaced numbers such as Times New Roman for your clock displays. Set clock attributes using the Size & Attributes tab. Please note that local formatting and vertical text processing is not available for clocks.

Clock Fonts

Inscriber recommends that you use mono-spaced numbers such as Courier for your clock displays. If you wish to use fonts other than Courier, you can position your clock display using a Count Up clock from the type drop-down list. You should select the Display Leading Zeros option for accurate positioning. When your clock is positioned properly online, change the clock type to either 12 hour or 24 hour. Local formatting and vertical text processing is not available for clocks.

Add a Clock to a Layout

1 Select the Documentation Template from the Templates registry and click on the Rectangle tool and draw a rectangle on the layout.

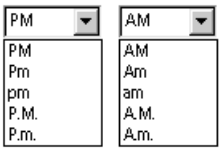
2 Switch to the Styles tab and select style group 19.

3 Switch to the Size & Attributes tab, change the Edging size to 11, and change the vertical size to 100 and the Horizontal size to 375.

4 Switch to the View tab and change the Baseline to 15 and the Left edge to 20.

5 Switch to the Effect Settings tab and select Clock from the Layout Type drop-down list.

6 Check the AM/PM checkbox, then check the AM and PM checkboxes and select a style for AM and PM to appear in from the drop-down lists.



7 Switch to the Styles tab and select style group 14.

8 Switch to the View tab and change the Baseline to 45 and the Left edge to 100.

9 Press the ENTER key on the number pad to take the clock to video. Press ESC to stop the take.

Understanding the HSV Color Model

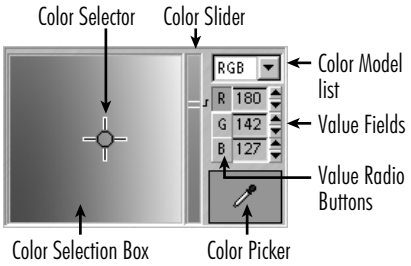
In CG, you can use one of three color models (HSV, RGB, or HLS) to select colors.

You do not have to fully understand the color models in order to select colors. With a bit of practice, you can find a color using any of the color definition systems. The three color models used in CG provide different approaches to defining colors. The RGB model describes colors in terms of the intensity of the red, green, and blue components in the video signal. The HSV model describes colors in artist's terms of tint, shade, and tone. The HLS model describes colors in terms of hue, lightness (or brightness), and saturation.

All of these models are equally valid, and they all describe the full set of colors available for NTSC or PAL encoding. You can select any model at any time, or switch from model to model at any time. You may find that certain colors are easier to select with one model over another and switch back and forth depending on the color you want.

Color Model Basics

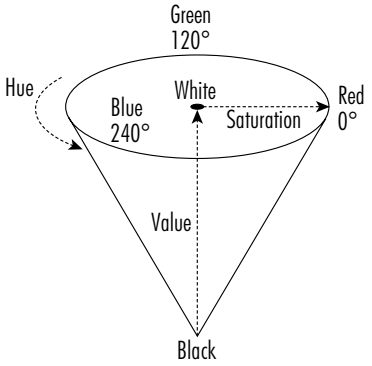
In all three color models, color definitions are the result of three values. When you modify one value, the range of possible colors that can be achieved using the other two values changes, so the color display changes. Use the Color Selector to get close to the color definition you want and then change the three values numerically until you reach the specific color.



Hue, Saturation, and Value (HSV)

The HSV color definition model often appeals to artists and others who work with pigments, and describes colors in terms of tint (hue), shade (value), and tone (saturation).

This model uses a cone-shaped object to define the color space. Pure colors (Hues) are defined with Saturation and Value at 100%. Hues are measured in degrees ranging from red at 0° through green and blue to magenta. Saturation is measured from the center of the cone (0%) to the outside (100%). Colors can only be fully saturated when Value is 100%. Decreasing the Saturation without changing the Value is like adding white pigment to a pure pigment color and moves the color from the outside towards the center of the cone. Decreasing Value without changing Saturation is the same as adding black pigment, which creates shades. Tones are created by decreasing both Saturation and Value.



Grays fall along the center Value line with Black at the bottom with a value of 0%. When you are on the center line (when Saturation is 0), then Hue is meaningless.

Using the HSV Model

When you select the H, S, or V button, the Color Slider shows you the result of choosing all the possible values of that parameter, given the current settings for the other two parameters. The other two parameters are displayed in the Color Selection box, showing you all the possible colors that can be defined given the current selection in the Color Slider.

If you select Hue, the Color Slider shows you all of the hues that can be defined, given the current Saturation and Value selections. To change the Hue, slide the marker up and down in the Color Slider. To change the Saturation, move the Color Selector in the selection block left or right to move from gray to fully saturated. Move the Color Selector up and down to change the Value. If you move the selector to the bottom of the selection block, the color is black.

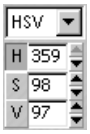
If you select the Saturation button instead of the Color Slider, the colors that can be defined with Saturation values of 0 at the bottom (gray) and 100 at the top (fully saturated color) are displayed. To change the Hue, move the selector in the selection block left or right. Move the Slider up or down to change the Value setting.

Selected	Slider Adjust	Vertical Adjust	Horizontal Adjust
H	Hue	Value	Saturation
S	Saturation	Value	Hue
V	Value	Saturation	Hue

Change Colors with the HSV Model

1 Type the words "Changing colors" and click on the FACE color chip on the Color & Texture tab.

2 Click on the Color Models drop-down list and select the HSV color model from the list. Now, change the H value to 359, the S value to 98, the V value to 97, and click on the Edge color chip.



3 Click on the Color Picker and drag to the FACE color chip. Release the mouse button. The edge color changes to match the face color. Now, change the S value to 92 and change the V value to 49.

4 Click on the Color Selector and drag it toward the upper left corner of the Color Selection Box. As you move the Color Selector, the Color Picker Box shows you the new color. When H is selected, moving the Color Selector changes the S and V values for the color.

5 Release the mouse button. Your new color selection is immediately applied to the selected text line.

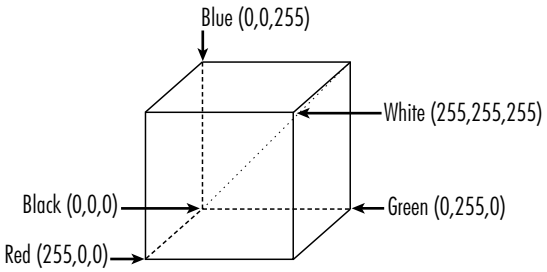
6 Drag the Color Slider down until the color in the Color Picker Box is a shade of blue. When H is selected, moving the Color Slider changes the H value for the color.

Understanding RGB and HLS Color Models

Red, Green, and Blue (RGB)

The RGB color definition method defines all colors by the amount of Red, Green, and Blue light in the signal. RGB is an additive model where the values of the three components are added together to determine the final color.

The RGB color space can be described by a cube. White is defined with Red, Green, and Blue all set to full intensity (255); black is defined with Red, Green, and Blue all set to zero intensity. Any setting with equal values of Red, Green, and Blue produces a shade of gray.



Use the RGB Model

When you select the R, G, or B radio button, the Color Slider shows you the result of choosing all 256 values of that parameter, given the current settings for the other two parameters. The other two colors are displayed in the selection block, showing you the 256x256 possible colors that can be defined given the current selection on the Color Slider.

If you select Red, the Color Slider shows you the colors for all the values of Red from 0 to 255, given the current values of Green and Blue. The selection block shows you the 65,536 possible colors that can be defined by changing Green and Blue, given the current Red value. If you change the Slider and select a new value for Red, the color square changes to show you the new 65,536 colors that can be selected by changing Blue and Green.

Selected	Slider Adjust	Vertical Adjust	Horizontal Adjust
R	Red	Green	Blue
G	Green	Blue	Red
B	Blue	Green	Red

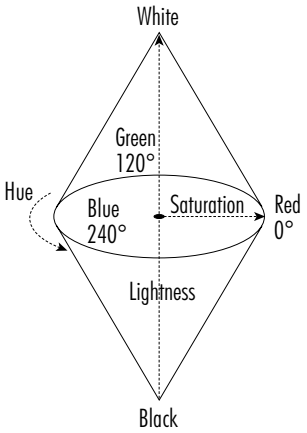
Hue, Lightness, and Saturation (HLS)

The HLS color definition model defines colors in terms of hue, lightness, and saturation.

The HLS color model can be described as a double-ended cone. Hue values range from 0° to 359° and are arranged in spectrum order from red through green and blue to magenta. Saturation determines the intensity or brightness of the color with a maximum saturation value of 100%. Grays fall along the Lightness axis ranging from black with a Lightness value of 0% to white with a Lightness value of 100%. All grays have a Saturation value of 0%. For maximum Saturation, Lightness must be set to 50%. If Lightness is set to its maximum or minimum, Hue and Saturation are irrelevant.

Use the HLS Model

When you select the H, L, or S radio button, the Color Slider shows you the result of choosing all the possible values of that parameter, given the current settings for the other two parameters. The other two parameters are displayed in the selection block, showing you all the possible colors that can be defined given the current selection in the Color Slider.



If you select Hue, the Color Slider shows you the range of hue parameters for the current Lightness and Saturation parameters. You can move the Slider up and down to change the Hue, or you can change the Lightness and Saturation by moving the selector in the Color Selector Box. Move the Color Selector Box up and down to shift the color closer to white or to black, or move the selector left or right to make the hue more or less intense.

Selected	Slider Adjust	Vertical Adjust	Horizontal Adjust
H	Hue	Lightness	Saturation
L	Lightness	Saturation	Hue
S	Saturation	Lightness	Hue

Change Colors Using RGB & HLS Color Models

1 Type the words "Changing colors" and click on the FACE color chip on the Color & Texture tab.

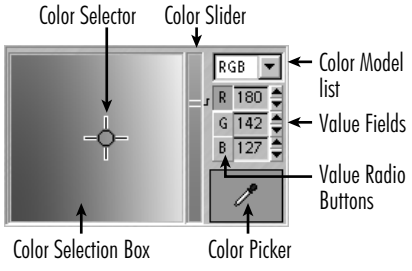
2 Click on the Color Models drop-down list and select the RGB color model from the list. Now change the R value to 247, the G value to 4, and change the B value to 8.

3 Select the HSL color model from the list. The values change, but the selected color remains the same.

4 Select the RGB color model from the list and click on R and move the Slider up and down. Moving the Slider affects whatever value is selected. Moving the Color Slider affects the two unselected values.

5 Click on G and move the Slider up and down and click on B and move the Slider up and down.

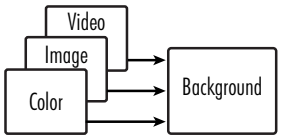
6 Select the HSL color model from the list and repeat steps 11 to 13 with H, L, and S.



Understanding Backgrounds

You can create a virtually unlimited number of background designs by using the video, image, or color background capabilities. Backgrounds are created using the Background tab in CG.

Background Types



CG backgrounds consist of three types—color backgrounds, image backgrounds, and video backgrounds—that can be combined in various ways to create your layout backgrounds. The video feed is always on the bottom, and the color layer is always on the top, with the image layer in between. Layout backgrounds usually start out video transparent, but you can use images or color backgrounds to block the video signal.

To set a CG background, select Color to insert a color background (such as a gradient), File to insert a file, or Over. to insert an overlay located on the left-hand side of the Background tab.

Overlay Backgrounds

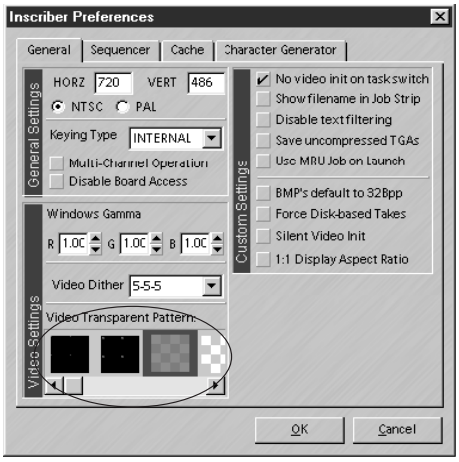
Overlay backgrounds are an option that can be added to any background type. An overlay preserves the background of the previous layout in the Play List. The CG layers of the current layout are displayed on top of the previous background, and the background of the current layout is ignored.

Video Background Basics

In CG, backgrounds usually begin with a video transparent background. Video transparent means that your text and graphic objects appear on top of the incoming video signal when you do a take of your layout.

Video transparent areas are marked by a fill pattern. In the example to the right, all of the areas filled with the grey checkered pattern are transparent when the layout is taken to video.

If you don't like the default fill pattern, you can select a different fill pattern from the General tab on the File→Preferences dialog. This pattern is not included in the final rendered image; it simply shows you where your live video feed appears while you work on your layout.



Most of the available video transparent patterns are significantly different from any graphic you might use in a layout, so you should not have problems identifying your video transparent areas.

Background Tab

The Background tab lets you select the background type and the various options associated with each type.

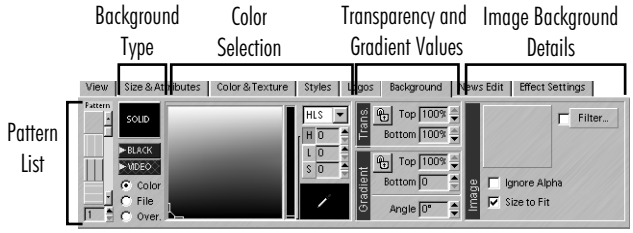


Image Background Basics

Image backgrounds consist of a bitmap image, imported from another software package or grabbed in Frame Grab. CG can read most common bitmap formats, including .bmp, .tga, and .tif.

Image backgrounds can contain alpha information, so you are not limited to opaque images. You can also create complex alpha patterns and gradients for an image background using third party software.

Color Background Basics

Color backgrounds consist of combinations of colors, gradients, patterns, and transparencies. A gradient is a smooth transition from one color to another color. A pattern is a standard design, such as lines or boxes, that is placed on top of a color background. Transparency is a measure of how much you can see through the background to the image underneath.

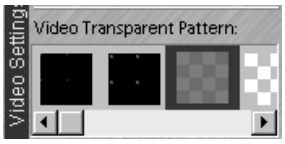
Because color backgrounds are created on top of image and video backgrounds, you can create complex backgrounds by combining the three background types and then making use of the pattern, gradient, and transparency options.

Change the Video Transparent Pattern

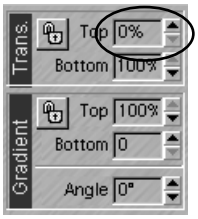
1 Switch to the Background tab. Video should already be selected as your background type.

2 Select File→Preferences to display the Inscriber Preferences dialog and switch to the General tab.

3 From the video transparent pattern list, select a new video transparent pattern and click on OK. Your monitor display is immediately updated to the new video background pattern.



4 Change the background top transparency value to 0%. The video transparent pattern is covered by a color at the top of the layout, but is visible at the bottom of the layout.



5 Change the video transparency pattern again, to see how different patterns appear at different levels of transparency.

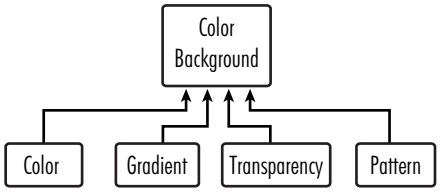
6 Repeat the above steps until you find a video transparency pattern that is effective for the types of layouts you create.

Using Color Backgrounds

Color backgrounds begin with a basic background consisting of one solid color. You can then use a number of other options to add complexity and interest to your backgrounds.

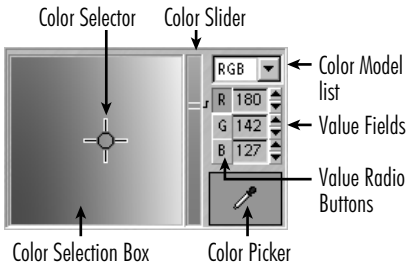
Color Background Options

The basic color background is a single opaque color. You can modify this simple background to create more complex backgrounds, by adding a second color, adding transparency, adding a pattern, or changing the angle of the gradient or transparency. See "Using Complex Color Backgrounds" on page 66 for details.



Understand Color Selection Tools

The Color Selection tools on the Background tab let you select colors based on one of three color models: RGB, HLS, or HSV. See "Understanding the HSV Color Model" on page 58 and "Understanding RGB and HLS Color Models" on page 60 for details on color models.



In the graphic to the right, the color model is RGB. The R button is selected, which means that all of the currently available values for Red are displayed on the Color Slider. The Color Selection Box displays the currently available values of Green and Blue. You can click on the G or B buttons to display those values on the Color Slider, and the Color Selection Box then displays the remaining two values.

Use Color Selection Tools

You can select colors in three ways: using the Color Selector and Color Slider, using the numeric Value fields, or using the Color Picker.

The Color Selector and Color Slider let you select specific colors using the mouse. Move the Color Selector and Color Slider over the color that you want to select. The color in the Color Picker box changes as you move the Color Selector and Color Slider to show you the selected color.

The Value fields let you make fine corrections to selected colors, or specify exact colors. Enter the values of the color you want to select, or use the arrow buttons, or drag up or down within a field to change the number in each Value field. The currently selected color appears in the Color Picker box, and you can see the changes that you make reflected in both the Color Picker box and the position of the Color Selector and Color Slider.

The Color Picker lets you copy a color from anywhere on the screen. Click on the Color Picker and drag it to the color on the screen that you want to copy. The color can be in the current layout, in one of the Play List thumbnails, or even in another application. As you drag the Color Picker on the screen, the color in the Color Picker box changes. The color of the pixel under the tip of the Color Picker is the

selected color. When the desired color is displayed in the Color Picker box, release the mouse button.

Select Colors

You always select the background color using the options on the Background tab. The current background color appears in the Solid/Blend cycle box, which is circled in the graphic to the right.

The Solid/Blend cycle box shows you the current background color(s), without any other options. If your background consists of only one color, the word SOLID appears in the box. If your background consists of a two-color gradient, the word TOP or BOTTOM appears in the box.

The SOLID, TOP, or BOTTOM appearing in the box tells you which color you are affecting when you change background colors. You can cycle through the three options by clicking on the Solid/Blend cycle box until the option you want appears.

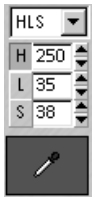
Full Black Backgrounds

CG provides you with an easy way to set your background to full black. If you click on the Full Black button just below the Solid/Blend cycle box, the current color definition is replaced with black and the video transparency is reset to 0%.

Create a Simple Color Background

1 Switch to the Background tab and select Color as your background type.

2 Select HLS as your color model from the Color Model list. Then,



- set the Hue (H) value to 250
- set the Lightness (L) value to 35
- set the Saturation (S) value to 38

3 Click on the next empty slot in the Play List and click on the H button.

4 Click on the Color Selector and drag it around the Color Selection box to set the L value to 36 and the S value to 80 and use the Color Slider to set the H value to 348. You can use the arrow buttons beside the Value fields to adjust the values once you are close to the desired number.

5 Click on the Color Picker and drag it on top of the thumbnail of the first layout in the Play List. The color in the Color Picker box changes as you drag the Color Picker across the screen, but the Solid/Blend cycle box doesn't change color.

6 Release the mouse button. The Solid/Blend cycle box changes color to show the color in the Color Picker box which becomes the new background color.

Using Complex Color Backgrounds

Gradients and transparency can be added to the basic CG background to create complex layouts. Gradients are smooth transitions from one color or transparency level to another, and patterns are basic elements, such as vertical or horizontal lines, placed on top of a color background or gradient. See "Using Transparency" on page 98 for details on transparency.

Gradients

A gradient is a smooth transition from one color to another color. You can use any of the color selection methods to select the top and bottom colors for a gradient.

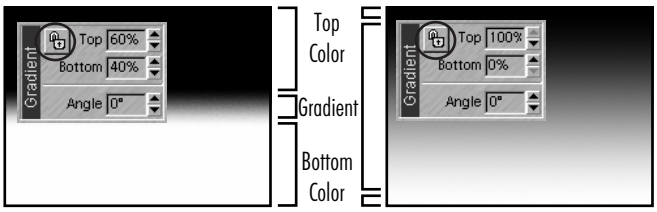
The Solid/Blend cycle box controls whether your background is a solid color or a gradient, and always shows you the selected color(s). By clicking on the Solid/Blend cycle box, you can cycle through the SOLID, TOP, and BOTTOM options. TOP and BOTTOM let you set the two gradient colors.

Change Gradient Values

You can change the amount of the pure color used in the gradient, as well as the angle of the gradient, by changing the gradient values on the Background tab.

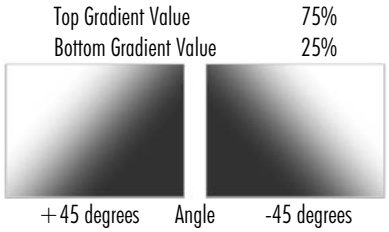
The percentage Top and Bottom values determine where on the layout the solid color stops and the gradient begins. Simply count down from the top and up from the bottom of the screen and your leftover space in the middle is where the gradient occurs. For example, if you set the Top value to 70%, and the Bottom value to 30%, the middle 40% (70% - 30% = 40%) of the screen is gradient. The graphic below illustrates how the balance between solid color and gradient shifts on the layout when you change the Top and Bottom values.

If you check the Lock toggle button, both the Top and Bottom values are set to the same percentage, with the gradient occurring on only 1% of the layout.



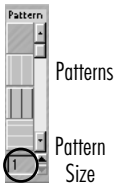
Change Gradient Angles

The Angle field rotates the color gradient by up to 90 degrees, negative or positive. Gradient angles are defined in one degree increments.If you set the Angle value to 90 degrees, your gradient becomes horizontal, moving from left to right, instead of from top to bottom.



Patterns

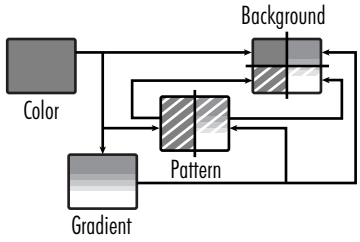
Patterns add interest to color and video backgrounds. Use the Pattern list to select a style, and then select a pattern size. The pattern size is similar to a magnification, and controls the size of the pattern elements. A Pattern Size value of 1 sets small pattern elements, and a Pattern Size value of 10 sets large pattern elements. Patterns can look very different depending on the pattern size. Experiment to see which patterns and sizes you like the best.



Pattern elements are always opaque, but any background visible behind the pattern elements maintains its transparency and gradient settings.

Combine Colors and Patterns

You can combine colors, gradients, and patterns to create a variety of complex backgrounds. The graphic to the right shows you the basic combinations.



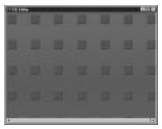
Combine Color and Transparency

You can combine a video background with any colored background, with or without a pattern, at any transparency level.

One important thing to note is that, if you are using both a color and a transparency gradient, the gradient values (Top, Bottom, and Angle), apply to both the color and transparency gradient. You can't modify them separately.

Create a Complex Background

This procedure shows you how to create a background with an angled color gradient and a pattern that looks like this:



1 Switch to the Background tab and select Color as your background type by selecting the Color radio button.

2 Click on the Solid/Blend cycle box to cycle to TOP and use the color selection tools to select red for the top color.

3 Click on the Solid/Blend cycle box to cycle to BOTTOM and use the color selection tools to select blue for the bottom color.

4 Select Blocks from the Pattern List. You can see the name of each pattern if you place the mouse over the pattern icon in the list and wait a second for the Tool Tip to appear.

5 Now, set the Pattern Size value to 4 and in the Angle field, set the gradient angle to 30.

6 Create a video gradient by changing the Top transparency value to 75% and the Bottom transparency value to 25%.

You can see some of the video fill pattern through the color background when you change the transparency values, indicating that your live video feed is partially visible through the background color. Pattern elements are not transparent.

Your Background tab should now look like this:

Using Video and Image Backgrounds

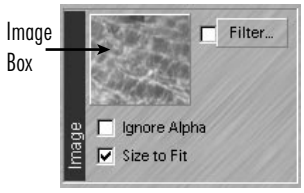
Image and video backgrounds are additional options that you can use in your backgrounds. CG/S lets you create complex graphics in Logo Compose and use those graphics in your CG layouts. Video backgrounds, combined with transparency options, let you incorporate a video feed into your layout.

Transparency features give you the ability to create a transparency gradient. However, the transparency gradient values also apply to color gradients. If you use transparency and color gradients together, be aware that the gradient settings apply to both types of gradients.

Image Backgrounds

You can design any background you want for your layouts using Logo Compose. You can use Frame Grab to capture images from your video feed and use those images as backgrounds. See "Frame Grab — An Overview" on page 218 for more information. Any graphic, as long as it is saved in a compatible format, can be used as an image background. The Image section of the Background tab contains all of the tools you need to use image backgrounds effectively.

Clicking on the Image Box automatically opens the Open dialog where you can navigate to the image you want to use as your background image. A thumbnail of the selected image appears in the Image box.



When you select a background image, CG creates a reference to the image file. If you move your image files around, CG may not be able to find the file again. If CG cannot find an image file on the path originally used, it looks in the Samples folder included with the CG/S program files. Storing your image files in this folder makes them easier to find.

If you check the Size to Fit checkbox, the image is stretched or compressed so that it fits the current dimensions of your layout. If you do not check the Size to Fit checkbox, the image is imported at its original size and filed to fill the entire layout. You can also apply filters to images. See "Using the Image Filters" on page 220 for details.

Alpha Information in Image Backgrounds

Many software packages let you create an alpha channel for your images. CG can read this information and apply it to the background, letting you control the transparency of your background image.

If you check the Ignore Alpha checkbox, CG discards this alpha information and doesn't allow any transparency in your background image. Image backgrounds take all their transparency (alpha) information from the image file. The transparency settings on the Background tab are ignored.

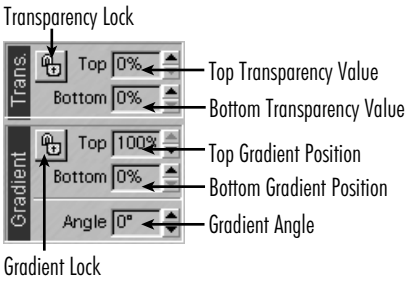
Video Backgrounds

CG provides you with an easy way to set your background to video. Click on the Video button, just below the Solid/Blend cycle box, to reset the video transparency to 100%. The color definitions are not changed, so you can always switch back to a color background.

You can click on Video at any time to reset the video transparency values to 100%. If you loaded a background image, clicking on full video resets the Image box.

Transparency

Transparency lets you mix color and video backgrounds. You can create a semi-transparent color background or a transparency gradient, so that one half of the layout displays a solid color and the other half displays the video feed.



Transparency is measured as a percentage, and only affects the color background. 100% is completely transparent, and 0% is completely opaque. Any other value is semi-transparent. The number of transparency levels available depends on your frame buffer.

When selected, the transparency Lock button sets the top and bottom transparency to the same value. If you adjust one value, the other value is changed to match it. You can create a transparency gradient by setting the Top and Bottom Transparency values to different percentages. Transparency gradients work exactly the same as color gradients. See "Working with Classic Color Gradients" on page 96 for details.

Roll, Crawl, and Reveal Backgrounds

The way backgrounds behave for rolls, crawls, and reveals depends on your frame buffer. Some frame buffers scroll backgrounds with text, and others place text over a static background. You need to experiment with your frame buffer to determine its capabilities.

Create Color, Image, and Video Backgrounds

1 Switch to the Background tab and select Color as your background type by selecting the Color radio button.

2 Click on the Solid/Blend cycle box to cycle to TOP and use the color selection tools to select yellow for the top color.

3 Click on the Solid/Blend cycle box to cycle to BOTTOM and use the color selection tools to select purple for the bottom color.

4 In the Angle field, set the gradient angle to -45, set the Top gradient value to 80%, and set the Top transparency value to 80%.

5 Check the transparency Lock button. The top and bottom transparency values don't change.

6 Click on the up arrow beside the bottom transparency value. The Top and Bottom transparency values change to 1%.

7 Set the bottom transparency value to 50%. The top transparency value also changes to 50%.

8 Click on the Image box and select the file 1030_063.tif from the CGS 41\Samples folder. The Size to Fit checkbox is automatically checked.

9 Clear the Size to Fit checkbox. The image reverts to its original dimensions and is tiled.

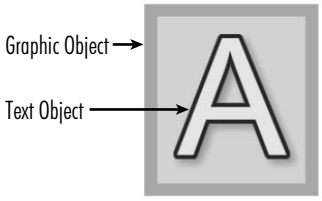
10 Click on the Video button below the Solid/Blend cycle box. Now the Image box is cleared, and the top and bottom transparency values are reset to 100%.

Understanding Objects

CG uses two types of objects—text objects and graphic objects—to create layouts. Text and graphic objects are found on separate planes, but share many of the same characteristics and features.

Types of Objects

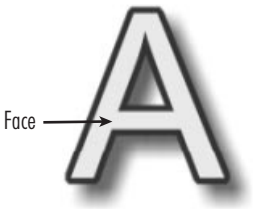
Text objects are the alphanumeric symbols you use to convey information. Text objects consist of characters entered from the keyboard, and are modified by color or style groups, which control all of the formatting options applied to text objects.



Graphic objects consist of shapes created in CG, such as rectangles or circles. Graphic objects also include logos, which contain alpha information. Graphic objects are modified by color or style groups. Text and graphic objects do not share style and color groups. Each type of object has its own set of style and color groups.

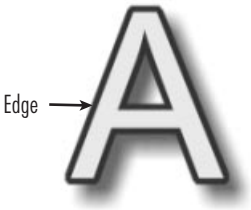
Face

Both text and graphic objects have a face. The face is the actual shape of the text or graphic object, such as the letter "A" or a rectangle. The face is the top element of an object.



Edge

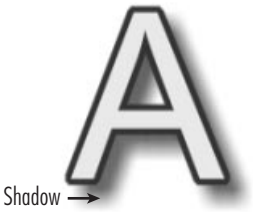
The edge, for both text and graphic objects, is the middle element of the object. It is a solid layer of color or pattern that extends beyond the face by a specific number of pixels.



The edge under the face is usually hidden, unless you adjust the face transparency values. See "Understanding Classic Edges" on page 90 for more information on setting text edge effects.

Shadow

The shadow, for both text and graphic objects, is the bottom element of the object. It is a solid layer of color or pattern that is offset from the face by a specific number of pixels, and created using the shadow option you select.



The shadow under the face and edge is usually hidden, unless you adjust the face and edge transparency values. See "Understanding Classic Shadow" on page 88 for more information on setting text shadow effects.

Select, Delete, Copy, and Paste Text

A number of methods are available from the Edit menu for selecting and manipulating text. You can only perform these actions on a single line of text.

Action	Methods
select a Line	• click anywhere within the line
select a Word	• double-click on the word
select part of a line	• click and drag the cursor over the text • place the cursor next to the text, hold down the SHIFT key, and use the right and left arrow keys
cut or delete selected text	• hold down CTRL and press X
copy selected text	• hold down CTRL and press C
paste text	• hold down CTRL and press V

Select, Delete, Copy, and Paste Graphic Objects

A number of methods are also available from the Edit menu for selecting and manipulating graphic objects. You can only select one graphic object at a time.

Action	Methods
select an object	• click anywhere on the object
cut or delete selected object	• hold down CTRL and press X
copy selected object	• hold down CTRL and press C
paste object	• hold down CTRL and press V

Format Text

Depending on which font appears first in your Fonts List, your text may be a different font than the font used in this procedure.

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and make sure the cursor is between the brackets in the CG Editor.

2 Type the sentence "This is a test."

3 Click on the Height field on the Size & Attributes tab and type 30 to change the value.

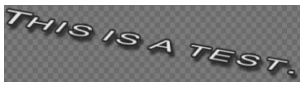
4 Click on the Width field and drag the mouse up until the value reaches 230. You now have two ways to enter values in numeric fields.

5 Now, enter 230 in the Width field, enter 12 in the Slant field, and enter 20 in the Kerning field.

Your line of text should look like this:

6 Enter 80 in the Small Caps field. Your text should look like this:

7 Enter -10 in the Rotation field. Your text should look like this:

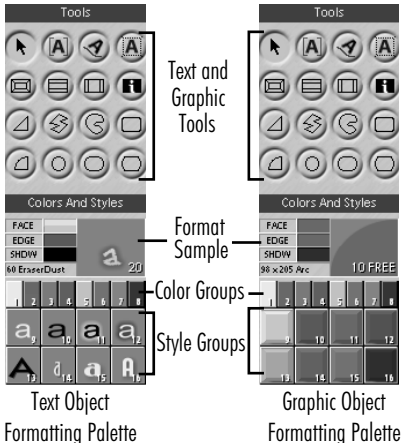


Using Style and Color Groups

Style and color groups, located in the Formatting palette, control the appearance of your text and graphic objects.

Style and Color Groups

All text and graphic objects must belong to either a style group or a color group. Style groups save all formatting options for an object, including options set on the Color & Texture tab and on the Size & Attributes tab (font, height, width, shadow size, edge type, etc.). Color groups only save options set on the Color & Texture tab. See "Understanding Text Color" on page 94 for details.



The Formatting palette lets you access the 8 color groups and 8 of the 24 style groups. All 24 style groups can also be found on the Styles tab. Color groups are numbered from 1 to 8. Style groups are numbered from 9 to 32.

Whenever you make a change to an object, any other objects in the layout that share the same style or color group are updated. Objects that share a color group, but not a style group, can have different options selected on the Size & Attributes tab.

Format Sample

The format sample provides basic information about the style or color group settings for the selected object.

You can tell what group an object belongs to by looking at the format sample on the Formatting palette. The number in the lower right corner of the sample area is the style or color group number. If the Freeform option is on for the group, the word FREE appears after the number at the bottom of the sample. The format sample also tells you the height and font of text objects, and the size of graphic object.

Apply Style and Color Groups

Any new object is created using the current style or color group. You can change the style or color group by clicking on the object and then clicking on a style or color group on the Formatting palette, or on a style on the Styles tab.

Text vs. Graphic Groups

CG actually has two sets of style and color groups, one for text objects and one for graphic objects. The two groups are numbered the same way (from 1 to 32), but you can change text style and color groups without affecting graphic object style and color groups, and vice versa.

Text style groups include the width and height of the characters, but graphic style groups do not include the width and height of the object.

Graphic style groups include the shape of the graphic object. When you create a graphic object, you select a style or color group and then a graphic tool from the palette. The object that you create uses all of the attributes of the style or color group except shape, size, and position. However, if you select an object, and then select a style group, the object takes on all of the style group attributes, including shape. If you want to change the shape of an object, click on the Graphic button and select a different shape from the Graphic Shape drop-down list on the Size & Attributes tab.

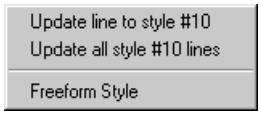
Change Style and Color Groups

To change the options for a style or color group, click on a line of text or a graphic object. Make whatever changes to the style you want, using the Color & Texture and Size & Attributes tabs. Remember that changes made with the Size & Attributes tab do not affect color groups. Any objects in the layout that share the style or color group of the selected line are updated to reflect the changes you make. The style or color chip on the Formatting palette and the style chip on the Styles tab are also updated.

Freeform Style and Freeform Color

Freeform Style and Freeform Color let you modify a line of text or a graphic object without affecting any other text formatted with the same style or color group. Freeform Style affects style groups and Freeform Color affects color groups.

You can turn Freeform Style and Freeform Color on or off by right-clicking on a style or color chip and selecting Freeform Style or Freeform Color from the right-click menu. You must turn it on or off separately for each style or color chip.

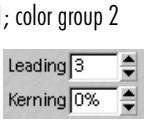


If Freeform Style or Freeform Color is off, any changes you make to a selected line of text or graphic object affect all other lines of text or graphic objects formatted with the same style or color group.

Use Text and Graphic Object Style and Color Groups

1. Select the Documentation Template from the Templates registry drop-down list on the CG toolbar.
2. Type the following as four lines of text:

   style group 12; style group 24; color group 1; color group 2
3. Switch to the Size & Attributes tab and change the Leading to 18.



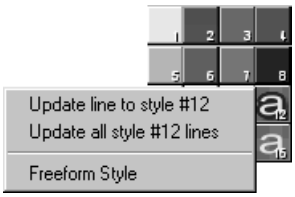
4. Click on the first sentence and select Element→Apply Leading.
5. Switch to the Styles tab and click on Style Group 12.
6. Click on the second line in the layout and click on Style Group 24.
7. Click on the third line in the layout and click on Color Group 1 on the Formatting palette.
8. Click on the fourth line in the layout and click on Color Group 2. When you click on a style group, the font as well as the color of the text changes. When you click on a color group, only the color, not the size or appearance, of the text changes.

Formatting Text and Graphics

Text and graphic objects can be modified with style and color groups, or with local formatting and Freeform Style and Color. Both local formatting and Freeform Style and Color formatting provide you with precise control over all of your objects. Style and color groups can also be modified quickly, based on changes you make to individual characters and objects.

Format Right-Click Menu

The Formatting palette right-click menu can be accessed by placing the mouse pointer over a style or color group on the Formatting palette and clicking the right mouse button. The options on the right-click menu only apply to the style or color group your mouse pointer was placed over.



The right-click menu lets you change and update style and color groups using the Format Sample on the Formatting palette.

Modify Lines or Characters

You can modify selected characters, selected lines, or all lines formatted with a style or color group.

Freeform Style and Freeform Color let you modify each text or graphic object separately. You can turn Freeform Style or Freeform Color on or off by right-clicking on a style or color chip and selecting it from the menu. You must turn it on or off separately for each style or color chip. If Freeform Style or Freeform Color is on, any change that you make is treated as local formatting.

If Freeform Style is not checked, any changes that you make automatically affect all of the other lines formatted with the same style or color group. If Freeform Style is checked, any changes that you make only affect the current line, and are not applied to any other lines formatted with the same color or style group.

Local formatting can be done with Freeform Style on or off. Use the mouse pointer to select some of the text in the line. The selected text is surrounded by a semi-transparent white rectangle. Any changes you make affect only the selected text.

Work with Advanced Formatting Options

You can use modified text lines to update style and color groups, and you can also use style and color groups to get rid of any modifications. You can access these advanced formatting options with the right-click menu, or with the mouse. The following table explains how to use the right-click menu for advanced formatting.

Menu Item	Result
Update line to style #	• changes the style or color group formatting to match the format sample, and applies the new formatting to all lines tagged with the style or color group
Update all style # lines	• re-applies the formatting of the current style or color group to all lines tagged with the style or color group, and discards any local or Freeform Style, or Freeform Color formatting

The following table explains how to use the mouse for advanced formatting.

Items to Drag	Result
Format Sample to CG Editor	• changes the formatting of all of the lines tagged with the style or color group to match the Format Sample, without updating the style or color group
Format Sample to Style or Color Group	• changes the style or color group formatting to match whatever is in the format sample, and applies the new formatting to all lines tagged with the style or color group
Style or Color Group to Format Sample	• when Freeform Style is checked, changes the formatting of the selected line back to the formatting of the style or color group
Style or Color Group to CG Editor	• reapplies the formatting of the current style or color group to all lines tagged with the style or color group, and discards any other formatting

Local Formatting

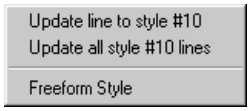
Local formatting lets you change the formatting of a few letters or words on a line without affecting the style or color groups. To apply local formatting, select the text characters and then make any changes to the color, texture, size, or attributes options. After you have applied local formatting, look at the format sample on the palette. The number in the bottom corner has a "+" in front of it, indicating that local modifications have been made to the current text object. The format sample also changes to show local formatting such as color, size, gradients, and so on.

Use Advanced Text Formatting

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and type the following lines.

Line one
Line two
Line three
Line four

2 Right-click on the Formatting palette above style group 10 and select Freeform Style from the right-click menu.



3 Click on Line one, switch to the Color & Texture tab and change the face color of the text.

4 Click on Line two and change the edge color of the text.

5 Click on Line three, switch to the Size & Attributes tab and change the font of the text.

6 Click on Line four and change the width of the text.

7 Click on any one of the lines and drag the Format Sample to style group 10.

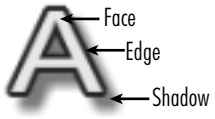
8 Right-click on style group 10 and select Freeform Style from the right-click menu to disable this option. All lines tagged with style group 10 are updated to the new formatting.

Understanding Text Objects

CG gives you complete control over the appearance of your text. You can change single characters, entire lines, or entire layouts, depending on what options you select and how you decide to format your text.

Default Text Formats

Each Classic text character consists of three areas: face, edge, and shadow. The face defines the character shape, size, and general appearance. The edge defines the character outline. The shadow defines the type and style of the character shadow.



Other type styles contain additional elements: outline edge, face depth, body depth, tube, and glow. See "Understanding Type Styles" on page 86 for details.

When you open the CG Editor, your text uses the settings of the default template and the Classic type style. The chart below explains the text settings in the default template and applicable ranges.

Setting	Min. to Max.	Explanation
Font		• font used for the selected character or line
Height	10 to 999	• character height, measured in scan lines
Width	35% to 335%	• character width, as a percentage of the standard width for the character height
Slant	-127° to 127 °	• angle of the text
Leading	-44 to 44	• number of scan lines between lines of text
Kerning	-99% to 99%	• space between individual of characters as a percentage of normal spacing
Small Caps	0% t o 100%	• percentage of normal capital letter height
Rotation	-180° to 180%	• rotation angle of the line of text
Bold/High Quality		• TrueType font variation or High Quality smooths out rough or jagged edges for Inscriber.fnt fonts
Underline		• TrueType font variation
Italic		• TrueType font variation
Shadow Size	0 to 127	• depth or offset of the shadow in pixels
Shadow Type	0	• type of shadow; softness needs pixel info
Shadow Softness	0 to 29	• how hard or diffuse the edge of the text shadow
Direction		• direction of shadow
Edging Size	0 to 127	• number of pixels added to text edges
Edging Type		• type of edge applied to text

Size & Attributes Tab

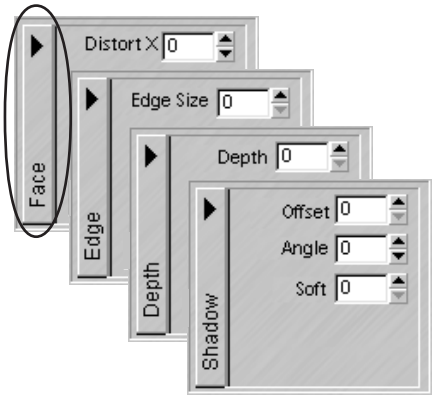
The options in the previous table are set on the Size & Attributes tab and the Color & Texture tab. The Size & Attributes tab is divided into two sections: Type Specs and Type Styles. Type Specs control the face options, and Type Styles lists type styles that contain preset edging and shadow options that you can customize.

Color & Texture Tab

You can cycle between text elements for all type styles using the Color & Texture tab. Click the text element cycle button to move between text elements. Click the left mouse button to move forward through the elements, and click the right mouse button to move back through the elements. The graphic below shows you Embellished's four text elements:

You can also toggle between the Color Picker and Texture options. Click on the color/texture toggle to switch between the Color Picker and Texture options.

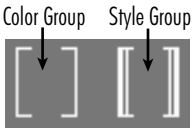
Text Element Cycle Button



Identify Text Style and Color Groups

The flashing cursor marks the text insertion point, which can appear between two square brackets or inside a rectangle. You can place the insertion point on any line by clicking on the line.

All text belongs to either a style or a color group. You can tell what kind of group a line of text belongs to by looking at the vertical lines that surround the current text line. If the text belongs to a color group, you see a single vertical line. If the text belongs to a style group, you see a double vertical line. See "Using Style and Color Groups" on page 72 for details.



Work with Text

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and make sure the cursor is between the brackets in the CG Editor.

2 Type the sentence "This is a test."

The vertical lines of the bounding brackets are double lines, indicating that the formatting for the text line is being taken from a style group.

3 Click on one of the color chips on the Formatting palette. The color of the text changes, and the vertical lines of the bounding brackets change to single lines, indicating that the formatting for the text line is being taken from a color group.

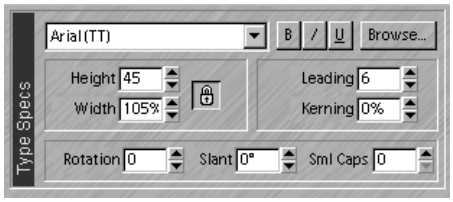
4 Hold down CTRL and click and drag the text line to a new position. Alternately, you can use the Move tool to move text up or down when it is tab-constrained.

5 Hold down CTRL and press TAB. A white box now surrounds the text line, instead of two brackets. The text is no longer tab-constrained.

6 Use the Move tool to click and drag the text line to a new position. You can now drag the text line in any direction, instead of just vertically.

Setting Text Attributes

The Type Specs section of the Size & Attributes tab lets you control the face of your characters. Any values that you change in this section of the tab are immediately reflected in your layout.



Select a Font

The Font drop-down list includes all fonts available for your layouts. See "Understanding Fonts" on page 80 for details on fonts.

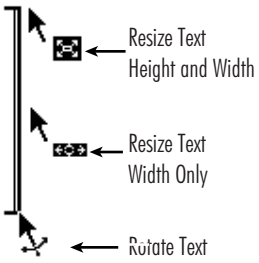
Font Attributes

When you are working with Inscriber.fnt fonts, the Bold option in the Type Specs section changes to the High Quality option to let you smooth out rough or jagged edges at large font sizes. You can also apply italics or underlining to text using the Italics or Underline button.

Adjust Font Size

You can change text height and width together or separately. The Lock button is useful if you use the mouse together with the Height and Width fields to resize text. If you click the Lock toggle button, the height and width are connected, and the mouse changes both height and width together proportionately. You can click the Lock button again to unlock and adjust width and height independently.

You can use the mouse to resize text height and width together by placing the mouse pointer over the upper right section of text until the cursor changes to a box with arrows pointing at each corner. If the cursor changes to a box with arrows pointing to each side, you can change only the width.



If you click on a line and then use the mouse to change the character size, the entire line is affected. If you select a portion of the line, and use the mouse to change the size, only selected text is affected.

Leading

Leading refers to the amount of space between lines of text. In CG, leading is the number of scan lines between the lowest possible descender in one line and the highest possible ascender in the next line. The value in the Leading field on the Size & Attributes tab represents the number of scan lines used between lines.

CG does not automatically update the display to reflect your leading changes because it requires redrawing the entire screen. You can manually update the layout display by clicking on the first line in your layout and selecting Element→Apply Leading. Your display is redrawn, starting from the selected text line.

Kerning

The Kerning value determines how much space is used between pairs of characters. Kerning is always measured as a percentage of the normal character spacing for the current font. Kerning lets you adjust the spacing between letters, which is useful for displaying characters with very wide ascenders or descenders. Kerning can also be used to achieve special typographic effects.

To change the kerning for an entire line, select the line and change the Kerning value on the Size & Attributes tab. To change the kerning for a single pair of letters, place the cursor between the two letters, hold down the CTRL key, and press MINUS or PLUS on the number pad to decrease or increase the space between them. Leading and kerning controls are not available for double-byte or glyph-processed languages.

Rotation

When you rotate text using the Rotation field on the Size & Attributes tab, your text is displayed with a thin gray rectangle surrounding the rotated line. You can change the formatting of text in rotated lines, but you can't change characters in the line. To change the characters, reset the rotation to zero, make your changes, and then rotate the line again.

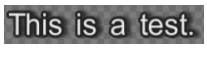
CG rotates the entire line of text along the same baseline. If you want to rotate individual characters in a word, place each character on a separate non-tab-constrained line, set the rotation and position separately for each line, and then position the lines side-by-side. See "Tab-Constrained vs. Non-Tab-Constrained Lines" on page 116 for details.

Small Caps

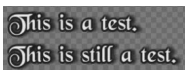
Any percentage other than zero in the Small Caps field changes all lower case letters to upper case letters displayed at a percentage of the normal upper case letter size. Upper case letters, numbers, and punctuation symbols are not modified.

Use Advanced Text Formatting

1. Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and make sure the cursor is between the brackets in the CG Editor.
2. Type the sentence "This is a test."

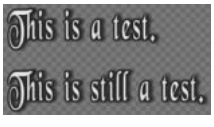


3. Click on Browse on the Size & Attributes tab and select a new font and click on OK.
4. In the CG Editor, press ENTER to move to a new line and type the sentence "This is still a test."



5. On the Size & Attributes tab, change the Kerning value to 25%, and change the Leading value to 40.
6. Click on the first line and select Element→Apply Leading.
7. Click on the Lock button on the Size & Attributes tab.

8. Change the Height to 80. The text height increased, t the width did not change.



Understanding Fonts

CG can use two different types of fonts: TrueType fonts installed for Windows, and Inscriber fonts. TrueType and Inscriber fonts differ in some important ways.

If you have been using Inscriber fonts, you may continue to use them, but CG/S currently ships with a selection of TrueType fonts, making the original Inscriber fonts unnecessary.

Fonts

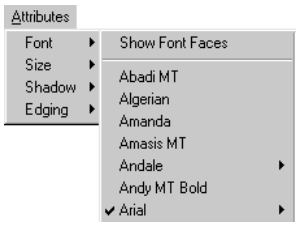
A font is a complete set of type in a particular face. The face is the design—the shape and line weight—of the font. Some fonts contain standard alphanumeric characters, while other fonts contain only special symbols.

Display Font Faces

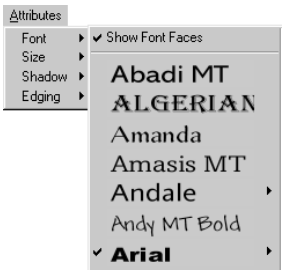
You can choose to display only the names of your installed fonts or both the names and the font faces of your installed fonts in the Attributes→Font menu.

To show font faces, select Attributes→Font→Show Font Faces. When the Show Font Faces menu item is checked, CG displays font faces as well as font names. When not checked, CG displays font names only. The graphic below shows you the difference between the two types of displays.

Font Names Only Displayed



Font Names and Font Faces Displayed



TrueType Fonts

TrueType fonts have a .ttf extension, and are found in the Windows System folder, or in their own separate fonts folder. TrueType fonts are available to all Windows applications, and each font is its own separate file.

TrueType fonts are specific to each computer, so if you run CG/S on multiple computers, you need to make sure that the same TrueType fonts are installed on each one. TrueType fonts are recommended over Inscriber format fonts because they offer better anti-aliasing.

Font Database

The font database keeps all of your fonts including TrueType fonts and Inscriber .ift fonts, in one place, and makes it easy to transfer fonts to and from different computers. The font database also lets you ensure that all of your computers and layouts are using the same fonts. See “Using the Font Manager” on page 84 for details.

TrueType and Inscriber Fonts

Inscriber recommends that you use TrueType fonts in CG. TrueType fonts (.ttf) are added to Windows in the Fonts control panel. These fonts are displayed in the Fonts List in CG, as well as in the Fonts List for any other application.

Inscriber fonts (.fnt) are added to the Inscriber font database (Inscribe.ift) using the Font Manager, and are only accessible in CG. See "Using the Font Manager" on page 84 for details on adding fonts to the database.

You can convert TrueType fonts to Inscriber fonts, and then add them to the Inscriber font database. You only have to convert TrueType fonts to .ift fonts if you are creating a common font database for multiple users.

You can remove a TrueType font by deleting it from Windows using the Fonts control panel. You can remove an Inscriber font from the font database by using the Font Manager.

If a layout contains a font that has been deleted, CG substitutes the first font in the Fonts List. Using the font database usually prevents fonts from being accidentally deleted, and ensures that all of your computers and Inscriber products are using the same font set.

Font Database Sizes and Limits

All the fonts in the Inscriber font database are stored in Inscribe.ift. This file can become quite large, since each font added to the database increases its size by 350K to 425K. Your database can contain an unlimited number of fonts. Note that a font database with thousands of fonts might slow down the speed at which your text lines are displayed.

Most font databases contain over 150 fonts, and databases with a few hundred fonts don't slow down the text line speed. Startup time, however, may be slightly increased if your font database is large.

Packed Fonts

TrueType fonts have an embeddability setting from their manufacturer that determines whether or not the font can legally be saved in packed jobs. See "Packed Jobs" on page 19 for details.

If the font has installable or editable embedding, it can be saved in packed jobs and worked with on another computer even if that computer does not have the font installed on it. If the font has print & preview embedding or restricted licence embedding, it cannot be saved in packed jobs. If a font cannot be saved, CG displays a message telling you which fonts have not been saved. However, if the font is already installed on the computer you are moving the packed job to, you can still access the font and edit your layout.

Using Character Mapping

ASCII is a standard character set for fonts. It is used by most common font types, including TrueType fonts. ASCII allows 256 characters to be defined in each font set. CG lets you enter characters using ASCII standards.

ASCII Keycodes

ASCII keycodes are a standard method for identifying characters within ASCII fonts. Each character is identified with a three digit number from 000 to 255. Each character usually has the same number in every font, which means that the ASCII code for the letter "a" is probably the same in each font. When you switch fonts in any application, the characters from the original font are replaced by the characters with the same ASCII keycodes in the new font.

Access ASCII Characters

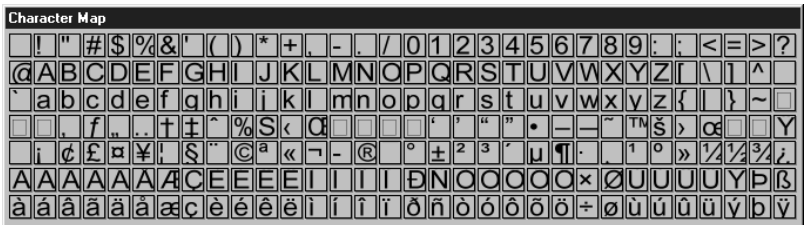
You may want to use characters not available from the keyboard but present in the ASCII character set, such as uppercase and lowercase accented letters, extra punctuation marks, mathematical symbols, or copyright and other symbols.

CG provides three ways for you to access ASCII characters. The CG Character Map inserts single ASCII characters. ASCII keycodes insert ASCII characters using the ALT key and the number pad. The Windows Character Map inserts long strings of ASCII characters.

Method	How to Use
CG Character Map	• select Edit→Character Map and click on a character to insert it in the current text line
ASCII Keycodes	• hold down the ALT key, use the number pad to type 0 plus the three digit ASCII keycode for the character, and release the ALT key to insert the character in the current text line
Windows Character Map	• select the Windows Character Map from the Start menu Accessories folder • using any font, place characters in the Characters to Copy field and then click on Copy • in CG, place the cursor where you want the characters to appear, and then select Edit→Paste

The Character Map

The Inscriber Character Map can be opened using Edit→Character Map.



Use the Character Map

You can click on a character on the Character Map to insert it at the cursor position in the current text line.

Use Keycodes

You can also place your mouse pointer over any character on the Character Map to find out the ASCII keycode for the character. You may have to wait a few seconds before the ASCII keycode appears in a small box under the pointer. You must have the NumLock turned on to use keycodes.

The Character Map always displays the character set for the current font. If you want to display another font, you need to switch to the font using the Size & Attributes tab, and then open the Character Map again.

The OK button accepts the characters that you entered on the current line. The Cancel button erases all of the characters that you entered on the layout using the Character Map. The BACKSPACE button lets you delete the character to the left of the cursor to correct any mistakes you may make while entering characters. You can enter any number of characters by clicking on them, and correct any number of mistakes.

Double-Byte and Glyph-Processed Fonts

Your system must be properly set up to use double-byte fonts, such as Japanese, Korean, and Chinese. Your language-specific version of Windows NT must support double-byte languages, and the language toggle must be set to multiple languages. You must also have double-byte fonts installed, the Far East option, and you must enable multiple language support in the Inscribe.ini file.

For glyph-processed fonts, see the Arabic or Hebrew help file in the CG/S41 folder.

You can use any system input method editor (IME) to enter text characters in double-byte fonts, or you can turn on the Use Custom IME preference on the Character Generation tab of the Preferences dialog. See "Setting CG Preferences" on page 38 for details.

Use Character Maps and Keycodes

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and make sure the cursor is between the brackets in the CG Editor.

2 Select Edit→Character Map and move the Character Map dialog so that the text line brackets are visible.

3 Click on characters on the character map to enter this text line:

"£©° • ®™ "

Use the BACKSPACE button to erase any mistakes you make.

4 Click on OK when you finish. If you click on Cancel, all the characters you entered are erased.

5 Press ENTER to start a new text line and make sure the NumLock key is turned on. Now, hold down the ALT key, enter the numbers 0163 on the number pad, and release the ALT key.

6 Repeat the above step using each of these numbers:

0169, 0176, 032, 0149, 032, 0174, 0153

7 Remember to release the ALT key after you enter each number. Your second line of text should look exactly the same as your first line of text.

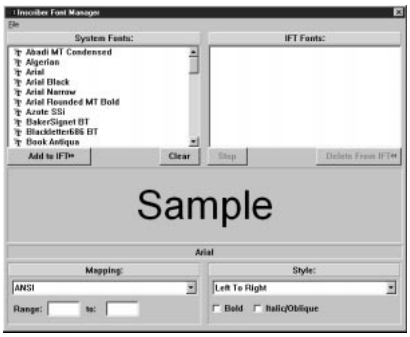
Using the Font Manager

The Font Manager is not necessary if you are using only TrueType fonts. TrueType fonts contain additional functionality .itf fonts don't have.

The Font Manager lets you add, delete, and modify fonts in the CG font database. Using the CG font database lets you retrieve and display fonts more quickly, and makes your font sets safer and more mobile. If a font is in the font database, CG always has access to it, even if the original font file is deleted from Windows. You can also copy the Inscribe.ift file to any other computer or give other users a copy.

Add Fonts to the Database

When you add fonts to the database using the Font Manager, the original TrueType or Inscriber font is rendered and added to the database file Inscribe.ift. You can add fonts, or parts of fonts, to the database one font at a time or in a large batch. Open the Font Manager by selecting Tools→Font Manager.



The Font Manager appears in its own dialog. When you add a font to the database, the Font Manager shows you each character as it is rendered. Then the font is added to the database and appears in the IFT Fonts List. On most systems, it takes only seconds to render a font and add it to the database.

By default, the Font Manager looks for .fnt files in the same folder as the CG/S program files. If you have font files saved in another folder, or on a CD, select File→FNT Files Directory from the Font Manager dialog to change the folder.

In the Fonts List, .ift fonts appear first, sorted alphabetically. TrueType fonts, also sorted alphabetically, follow the .ift fonts.

Duplicate Font Names

If you try to add a new font to the database and the font name duplicates a font already in the database, the Font Manager asks you to provide a new name. You can either type a new name for the font, or click on Cancel to stop adding the font to the database. If you are adding a number of fonts as a batch and want to skip just the font with a duplicate name, click on Skip instead of Cancel. Font names are limited to 35 characters.

Select Multiple Fonts for Batch Processing

You may want to add a number of fonts at once, instead of just one. Select all of the fonts to be added from the System Fonts List, and then click on the Add to IFT button.

You only have to convert TrueType fonts to .ift fonts if you are creating a common font database for multiple users.

To select multiple fonts from the list, use SHIFT or CTRL when you choose a font name. Use the SHIFT key to select part of the list, or the entire list. Use the CTRL key to select specific fonts within the list. To clear the list of fonts you have selected, click on Clear or on any font name without holding down SHIFT or CTRL.

Modify Fonts

You can use several options to modify the mapping and style of TrueType fonts when you add them to the font database. These options are located at the bottom of the Font Manager dialog. Unlike Windows, which allows you to add families of fonts (plain, bold, and italic versions) at once, you need to add different versions of fonts to the font database individually. For example, if you want a plain version and a bold version of a font, you have to add each one separately, selecting Bold to add the Bold version or making no selection to add the plain version.When you add a group of fonts, the options you select apply to all of the fonts in the group.

Modifier	Effect
Mapping	• affects the character keyboard assignment
Range	• determines which portion of a font is added to the database • the default is to add all of the characters in the set (0 to 255) to the database, but some files, such as a logo file, only have a few characters in the set • most fonts have printable characters in character positions 32 to 255
Style	• determines which direction text is processed in as you type
Form	• lets you select special versions of the font • Bold and Italic are TrueType versions of the original font • Heavy and Oblique are created by Windows functions if no Bold or Italic versions of the font are present

Use the Font Manager

1 Select Tools→Font Manager and select File→FNT Files Directory from the Font Manager dialog.

2 Select the location of your .fnt fonts. The .fnt fonts are shipped with CG/S and can be found on the CG/S CD ROM.

3 Scroll down the list of system fonts.

Inscriber fonts are identified by , and

TrueType fonts are identified by .

4 Look at the Times .fnt fonts. Notice the four Times styles: bold, bold italic, italic, and roman. Now look at the TrueType Times New Roman font. The TrueType font has only one entry.

5 Select the four Times .fnt fonts and click on Add to IFT. When you add multiple fonts, the Font Manager does not show you the rendering process.

6 Select the TrueType Times New Roman font and click on Add to IFT. When you add a single font, the Font Manager shows you the rendering process.

7 Select the TrueType Times New Roman font and click on the Bold checkbox.

8 Click on Add to IFT. To add an entire family of TrueType fonts to the font database, you have to select each variation (bold, italic, bold italic) and add it separately.

9 Select the TrueType Times New Roman font and type 97 in the first Range field and 122 in the second Range field.

10 Now, click on Add to IFT. Only the lowercase letters are rendered to the font database.

Understanding Type Styles

Type styles are preset character styles found on the Size & Attributes tab that consist of complex edging and shadow options. You can customize these styles by setting values on the Colors & Texture tab.

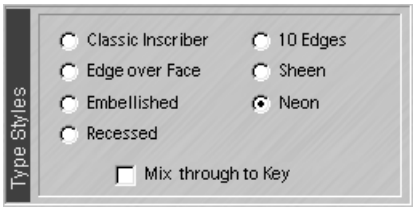
Classic Type Style

Previous versions of CG featured a Size & Attributes tab consisting of two sections: Type Specs and Attributes. The Attributes section included Shadow and Edging options.

The Classic Inscriber type style lets you create all the character effects you have in the past. Simply select the Classic type style radio button from the type styles section of the Size & Attributes tab. Face, edge, and shadow options are located on the Color & Texture tab.

For details on setting Classic type style color, transparency and texture, edge, and shadow values, see "Understanding Text Color" on page 94, "Using Classic Beveled Text" on page 92, "Understanding Classic Shadow" on page 88, "Using Transparency" on page 98, and "Working with Classic Color Gradients" on page 96.

Additional Type Styles



CG offers you six type styles that let you create complex text effects in addition to the Classic Inscriber type style: Recessed, Edge Over Face, Embellished, 10 Edges, Sheen, and Neon. Each of these type styles are located on the Size & Attributes tab. The graphic to the right shows you the seven available type styles. Each type style includes face, edge, and shadow options. Many of the type styles include additional element settings such as depth, face depth, body depth, outside edge, tube, and glow.

Embellished

Embellished displays the face on top of the edge, depth and shadow elements. The edge is added to the face element. Depth is added to the face and edge combined, creating a 3-D effect. Using Embellished, you can draw face, edge, and depth invisible while still drawing the element's shadow. See "Changing Embellished and Edge Over Face Settings" on page 108 for details.

Edge Over Face

Edge Over Face displays the character face underneath the edge element which decreases the size of the face. Depth is added to the edge of the face and edge combined, creating a 3-D effect. See "Changing Embellished and Edge Over Face Settings" on page 108 for details.

10 Edges

10 Edges uses up to 10 edges to outline the face. You can set each different colors and transparency values for each edge. For details, see "Changing 10 Edges Settings" on page 110.

Neon

Neon creates a neon sign effect by displaying a tube and a glow. You can specify the glow intensity, offset, angle, and softness. For details, see "Changing Neon Settings" on page 114.

Recessed

Recessed displays face, edge, face depth, body depth, and shadow elements, plus an edge that draws a line around all the elements combined, except shadow. See "Changing Recessed Settings" on page 106 for details.

Sheen

Sheen emphasizes sheen highlights on up to four edges, two innermost edges located on the face, and two outermost edges. The size and angle of each edge's sheen can be adjusted. See "Changing Sheen Settings" on page 112 for details.

Apply Different Type Styles

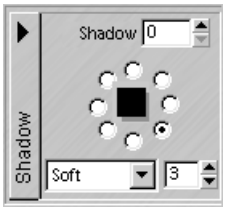
1. Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and make sure the cursor is between the brackets in the CG Editor.
2. Type the word "Test". Use the Move tool to move the tab-constrained text to the middle of the CG Editor.

3. Set the height to 224 and the width to 140%.
4. Select the Classic Inscriber type style from the type style list on the Size & Attributes tab.
5. Cycle to the Color & Texture tab. Set the FACE color chip to red, the EDGE color chip to green, and the SHDW color chip to blue. See "Understanding Text Color" on page 94 for details on setting color chips.
6. Set the Edging value to 10 and set the Shadow value to 20.
7. Cycle to the Size & Attributes tab. Select the Embellished type style from the type style list. The appearance of the text changes.
8. Switch to the Color & Texture tab. Cycle to Face. Drag one of the red color chips to each of the black color chips to change the color of the text face.
9. Cycle to Edge. Change the black color chips to green. Cycle to Depth. Change the black color chips to blue.
10. Cycle to Shadow. Enter an offset value of 10, angle value of -120, and soft value of 10. Set the shadow color chip to black.

Understanding Classic Shadow

Shadows add depth to flat 2D characters, and provide you with an additional way of adding visual interest to your layouts. CG provides a number of Classic Type Style shadow options that you can combine with Classic Type Style edges to create complex and interesting characters. All shadow options are located on the Size & Attributes tab.

Shadow Basics



Shadows require three values: shadow type, shadow size, and shadow angle. Soft shadows require an additional value: softness.

You can set all of the shadow values in the Attributes section of the Size & Attributes tab.

You can also change the shadow size by selecting a value from the Attributes→Shadow drop-down list. If you understand .ini files, you can also change the options on the drop-down list by editing the TextShadow= line in Inscribe.ini.

Shadow Type

CG provides four shadow types: drop, offset, extrude, and soft.

Drop and extrude shadows appear to move back in a third dimension from the character face. Offset shadows appear below the text line as if the character was suspended above a solid surface. Soft shadows look like offset shadows, except that they have a fuzzy edge instead of a hard edge.

Drop and extrude shadows are identical unless you use a color blend. Extrude shadows apply color blends from the top of the shadow to the bottom, vertically. Drop shadows apply color blends from the surface of the character to the back of the shadow, horizontally.

The example to the right shows you the differences between the shadow types. All of the shadows are drawn with a TOP color value of 20% gray and a BOTTOM color value of 100% black.

Shadow Size

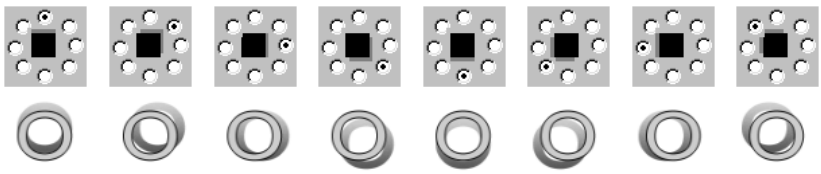
The shadow size determines the offset of the shadow in pixels. For drop and extrude shadows, the shadow size determines how far the shadow extends from the face. For offset or soft shadows, the shadow size determines how far below the character the shadow appears.

The graphic above shows you some common shadow sizes. The top line uses drop shadows and the bottom line uses offset shadows.

Shadow Direction

The shadow direction is set by selecting a shadow angle from the radio buttons. CG provides eight shadow angles in 45° increments. The sample block in the center of the buttons shows you the effect of the current shadow direction.

The example below shows you the eight available shadow angles using an offset shadow.



Shadow Softness

Soft shadows require an additional value, softness, to determine how fuzzy, or diffuse the edge of the shadow will be. A softness value near zero gives a hard-edged shadow similar to an offset shadow. A softness value closer to the maximum value gives a diffuse, indistinct shadow. Softness values range from 0 to 29 pixels.

The example below shows you the ranges of softness that you can use with a soft shadow.

Softness=0 Softness=9 Softness=18 Softness=29

Create Text Shadows

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and type the words "Shadow Example".

2 Switch to the Size & Attributes tab. In the Edging field, change the edge size to 1, and change the shadow size to 8.

3 Select Drop from the Shadow Type drop-down list. In the Editing field, change the shadow type to Offset, the shadow type to Extrude, and change the shadow type to Soft.

4 In the Softness field change the softness value to 20.

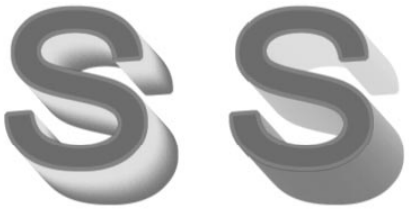
5 Switch to the Color & Texture tab and click on the shadow color chip in the bottom-left corner.

6 Click on the Solid/Blend cycle box to cycle to TOP.

Use the color selection tools to select red for the top color.

7 Now, change the Shadow Type to Drop and change the Shadow Type to Extrude. The shape of the shadow does not change when you switch between drop and extrude shadow types, but the placement of the top and bottom colors changes.

Drop Shadow Extrude Shadow

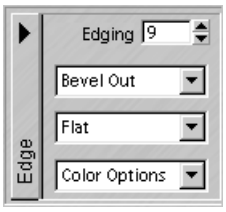


Understanding Classic Edges

Edges define or blur text against shadows and backgrounds, and provide you with an additional tool for adding visual interest to your layouts. CG provides a number of Classic type style edge options that you can combine with Classic type style shadows to create complex and interesting characters. All edge options are located on the Size & Attributes tab.

Edge Basics

Edges require two values: edge type and edge size.



All of the edge values can be set in the Attributes section of the Size & Attributes tab.

You can also change the edge size by selecting a value from the Attributes→Edging drop-down list. If you understand.ini files, you can change the values on the drop-down list by editing the TextEdging= line in Inscribe.ini.

CG provides three edge types: outline, glow, and emboss. All three edge types appear to surround the edges of characters with extra pixels of color.

The value in the Edging field represents the number of pixels that extend beyond the edge of the text face.

The text edge is not, however, just a line around the text characters. The edge is actually a solid layer underneath the face of the character. If the face layer is 100% opaque, only the edge pixels beyond the face are visible. However, if you make the face semi-transparent, the edge layer is visible under the face.

Outline Edges

Outline edging is a hard-edged line around each character. Different edge values change the way your characters look. For example, an outline edge value of 1 is often used to define characters against a background.

The example to the right uses edge values of one, three, and nine.

If you set the edge value to 0, the edge layer disappears. CG only creates an edge layer for a character when at least one pixel is visible beyond the face of the character.

Glow Edges

Glow edging is a softer edge that fades to semi-transparent at its outer limits, creating a fuzzy look around the characters.

The example to the right uses edge values of one, three, and nine.

As with outline edges, an edge value of 0 causes the edge layer to disappear.

You can create interesting effects with glow edges by changing the edge sizes on individual characters.

Embossed Edges

Embossed edging makes characters appear pushed out from the background. To create a successful embossed effect, the face color and edge colors must be carefully matched to the background color.

To create an embossed edge, you must select Emboss from the edge type drop-down list. Now, match the face and edge colors with the background. You can add a color blend to the edge so that the top of the edging is slightly lighter than the background and the bottom of the edging is slightly darker than the background.

Embossed edges look best if you use a small edge value. The examples below use edge value of one and two.

3D Text Edges

You can use the Bevel Out and Bevel In edge options to provide your text with a three-dimensional look. Your text is still two-dimensional, but appears to a viewer as if it is 3D. See "Using Classic Beveled Text" on page 92 for details.

Create an Embossed Edge

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and type the text "Embossed Edge".

2 Change the Edging value on the Size & Attributes tab to 3 and select Emboss from the Edge Type drop-down list. Change the Shadow value on the Size & Attributes tab to 0.

3 Switch to the Background tab and use the color selection tools to choose a solid color for the background.

4 Switch to the Color & Texture tab and click on the FACE color chip and drag it to the Edge color chip.

5 Click on the Solid/Blend cycle box until TOP appears.

6 Change to the HLS color model and increase the lightness (L) value by 8.

7 Click on the Solid/Blend cycle box until BOTTOM appears.

8 Decrease the lightness (L) value by 8. Your text should now look like this:

9

Using Classic Beveled Text

Beveled text provides standard two-dimensional characters with a three-dimensional look. Beveling a Classic type style text edge involves shading it so that it appears three-dimensional. This is not true 3D, just the appearance of 3D. In CG, you can choose to bevel text edges in or out, depending on the look you want to achieve.

Bevel Out vs. Bevel In

Beveling your text edges out means adding pixels of color to the edge of the text and working out from the text edge. As you add more pixels to the edge, your text characters get larger.

Beveling your text edges in means adding pixels of color to the edge of the text and working in from the text edge. As you add more pixels to the edge, your text characters remain the same size, but the face area decreases.

The graphic below shows you a text character with a flat bevel. In the first one, the edge size is set to 12 and the edge is beveled out. In the second one, the edge size is set to 12 and the edge is beveled in.

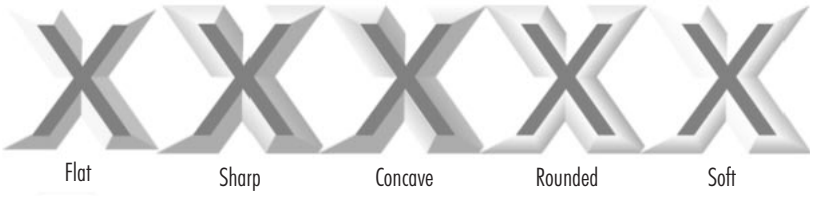
The third character explains how the edge is added to the face. In the third character, the bevel in character is placed on top of the bevel out character. The entire area of the bevel in character is the same size as the face area of the bevel out character.

Bevel Lighting Direction

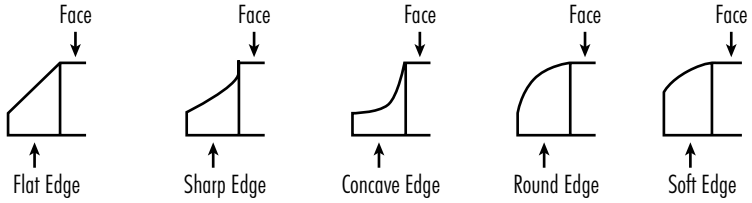
Beveled text is shaded using a light source that is directly opposite the selected shadow direction. You can change the light source by clicking on a different shadow direction on the Color & Texture tab.

Bevel Types

You can select one of five bevel types. Each bevel type applies a different shape to the bevel.



The graphic to the right shows you a cross-section representation of each type of bevel. The shading of each bevel type is determined by the shape of the bevel. For example, a flat bevel is a single shade on each face, because light hits every point on the face in the same way. However, a concave bevel has shading differences, because light hits every point on the face at a slightly different angle.



Bevel Color

You can select one of three color attributes located in the bottom-right corner of the Size & Attributes tab when you create beveled text. These color attributes usually affect the text face, rather than the bevel edge.

Color Type	Properties
Color Options	• uses standard CG options for face, including transparency and texture
Single Color	• allows a single face color, and no CG options
Match Edge	• automatically finds an edge color that matches the face color, after the face color has been corrected for lighting effects

Apply a Bevel

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and type the word "Bevel".

2 Switch to the View tab and change the Baseline to 300.

3 Switch to the Size & Attributes tab. Now, change the Height value to 175, the Width value to 100%, the Edging value to 25, and change the Kerning value to 20%.

4 Select Bevel Out as your edge type from the edge type drop-down list and change the shadow value to 0.

5 Switch to the Color & Texture tab and select HLS as your color model.

6 Click on the Edge color chip and set the H value to 218, the L value to 65, and set the S value to 62.

7 Switch to the Size & Attributes tab. Notice how the appearance of your text changes.

8 Select Concave as your bevel type and select Bevel In as your edge type and select Flat as your Bevel type.

9 Experiment with different bevel types and edging values until you are comfortable applying bevels.

Understanding Text Color

The options on the Color & Texture tab let you select colors, transparencies, gradients, and textures for the face, edge, and shadow of Classic and other type style text and graphic objects.

The Color & Texture tab does not look the same for both text and graphic objects. You can select a character or line option for Classic type style text objects, but not for graphic objects. See "Defining Classic Textures" on page 130 and "Using Classic Textures" on page 136 for details on texture options. Differences between the Color & Texture tab for Classic type styles and the other type styles are described in "Understanding Type Styles" on page 86.

Color & Texture Tab

Classic Type Style options on the Color & Texture tab are similar to the Background tab, and many of the options work in the same way. Be careful not to get confused between the two tabs and change the color of a background when you really want to change the color of an object or text, or vice versa.

If you do change something unintentionally, you can always use CTRL+Z to undo a mistake.

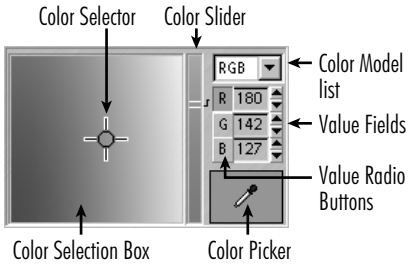
Face, Edge, and Shadow Selection

Colors for face, edge, and shadow are all set separately. The color, gradient, and transparency settings are different for each element.

Click on the appropriate color chip or toggle to set the object element you are changing. FACE is the face color, EDGE is the edge color, and SHDW is the shadow color. See "Understanding Objects" on page 70 for details on object elements. Classic type style color chips show you the color, gradient, and angle currently selected for each element. Other type style color chips show you set color.

Color Selection

When you select colors, you only affect one of the elements (face, edge, or shadow). You can apply solid or blended colors to any element. If you create a blend for one element that you like, you can copy it to the other elements by clicking on the color chip containing the settings you want to copy and dragging it to another color chip.



The Color Selection box displays all the colors you can define, given the current Color Slider parameter (the Value radio button selected). Use your mouse to select a color within the square. The selected color appears in the Classic type style Solid/Blend cycle box or on the other style color chips. The Color Slider shows the color values of the selected parameter. The slider appearance depends on the current color model and the color values. Select HSV, RGB, or HSL as your color model from the color model drop-down list. Colors can be set using numeric values in the color value fields. These values change when you select a different color model. See "Understanding the HSV Color Model" on

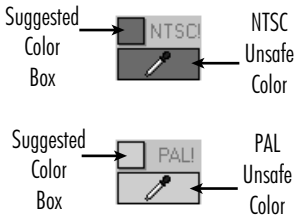
page 58 and "Understanding RGB and HLS Color Models" on page 60 for details on color models and the color selection tools.

The Color Picker tool copies colors from the screen. You can click on the Color Picker tool and drag it to any color on the screen. When you release the mouse button, the color of the pixel under the tip of the Color Picker is selected.

color under this point of the Color Picker becomes the selected color

Some images may contain many different colors of pixels, making it difficult to select a specific color. If you change the Zoom factor on the View tab to seven or eight, you can pick colors more easily.

NTSC and PAL Illegal Colors



In any color model, you can define colors that are not safe for video encoding. These unsafe (hot) colors can be defined and viewed on a computer screen, but cause problems when sent to video. If you define an unsafe color, a warning symbol appears near the Color Picker tool. The warning indicates that the current color is NTSC or PAL unsafe and shows you the nearest video safe color using both luminance and chrominance correction. To select the safe color, click on the Suggested Color box. CG does not check for hot colors in logos or external bitmaps, but you can use the Filter tab in Logo Compose to check for legal colors. See "Apply Filters and Create Effects" on page 229 for details.

Select and Modify Colors

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and enter a line of text.

2 Select the Classic type style on the Size & Attributes tab.

3 Select Style 10 from the Formatting palette or the Styles tab and switch to the Size & Attributes tab. Now change the Shadow size to 10 and the Edge size to 4

4 Switch to the Color & Texture tab and click on the FACE color chip. Make sure your color model is set to HLS.

5 Change the color values to H=234, L=56, S=84.

6 Click on the Solid/Blend cycle box until TOP appears, change the L value to 87, and change the Top gradient value to 90 and the Bottom gradient value to 10.

7 Click on the Edge color chip and click on the Solid/Blend cycle box until SOLID appears. Change the color values to H=234, L=56, S=84.

8 Click on the Solid/Blend cycle box until BOTTOM appears and change the L value to 87. Now change the Top gradient value to 90 and the Bottom gradient value to 10, and change the Gradient angle to 20.

9 Click on the Shadow color chip and click on the Solid/Blend cycle box until SOLID appears. Now change the color values to H=234, L=36, S=84.

Working with Classic Color Gradients

Color gradients let you add variety and interest to Classic type style text and graphic objects. You can use features in CG to create multiple gradients, as well as cut through objects to the layout background.

Gradients

A gradient is a smooth transition from one color to another color. You can use any of the color selection methods to select the top and bottom colors for a gradient.

For Classic type style text, the Solid/Blend cycle box controls whether an object element is a solid color or a gradient, and always shows you the currently selected color or colors. By clicking on the Solid/Blend cycle box, you can cycle through the SOLID, TOP, and BOTTOM options. TOP and BOTTOM let you set the two gradient colors.

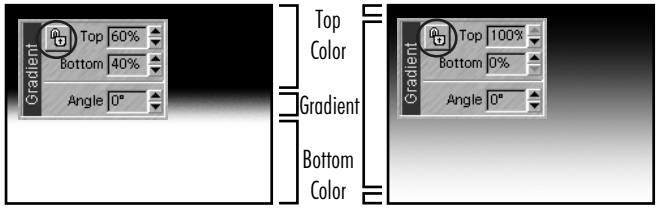
When you work with gradients, remember that the color gradient values also apply to transparency. You can combine color and transparency gradients and angles as long as you remember that gradient position and angle values are applied to both color and transparency gradients.

Change Gradient Values

You can change the amount of the pure color used in the gradient, as well as the angle of the gradient, by changing the gradient values on the Color & Texture tab.

The percentage top and bottom values determine where the pure color stops and the gradient begins. The graphic below illustrates how the balance between pure color and gradient shifts when you change the Top and Bottom values.

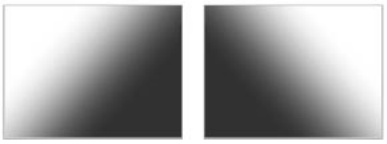
If you enable the transparency Lock or gradient Lock button, both the Top and Bottom values are set to the same percentage, with the gradient occurring on only 1% of the layout.



Change Gradient Angles

The Angle value rotates the color gradient by up to 90 degrees, negative or positive. Gradient angles are defined in one degree increments.

If you set the Angle value to 90 degrees, your gradient becomes horizontal, moving from left to right, instead of from top to bottom.

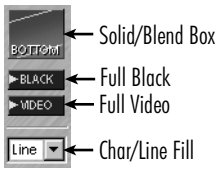


Color Options

The Solid/Blend cycle box shows you the current colors. Solid colors show one color in the box, with the word SOLID appearing in the box. Color gradient backgrounds have one color at the top and one at the bottom, with the word TOP or BOTTOM appearing in the box.

Click on the box to cycle through solid and gradient options.

You can select full black, which replaces the current color with black (0,0,0) and resets video transparency values to 0%. Full black only affects the current element.



Knockout to Background

You can select full video, which sets the video transparency values to 100% for the currently selected object element and cuts through any underlying text or graphic objects to the background. Remember that you need to set options for the face, edge, and shadow separately.

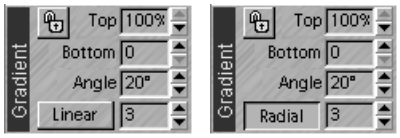
Classic Character or Line Fill

You select Character or Line from the drop-down list to apply the gradient to each character or across an entire line.

Character applies the entire gradient to each character. In the case of a gradient, each character goes from one color to the other. Line applies the fill to the line as a unit. The line goes from one color to the other, with each character displaying only a portion of the gradient.

Radial or Linear Fill

You can select Radial or Linear fill to apply a different type of gradient, or multiple gradients, to an object.



If you select Radial, the top color appears in the center of the object, and the bottom color appears at the edge of the object with the gradient occurring in a circular pattern. If you select Linear, the top color appears at the top of the object and the bottom color appears at the bottom of the object. Changing the number beside the Radial/Linear Fill cycle button changes the number of times the gradient is repeated in an object. The maximum number of gradient repeats is 63. See the procedure below for details.

Use Gradient Options

1. Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and type the following lines:

   Line one
   Line two
2. Select the Classic type style option on the Size & Attributes tab. Change the Shadow size to 0 and the Edge size to 1.
3. Switch to the Color & Texture tab and click on the Solid/Blend cycle box until TOP appears. Now change the top color to blue.

4. Click on the Solid/Blend cycle box until BOTTOM appears and change the bottom color to yellow.

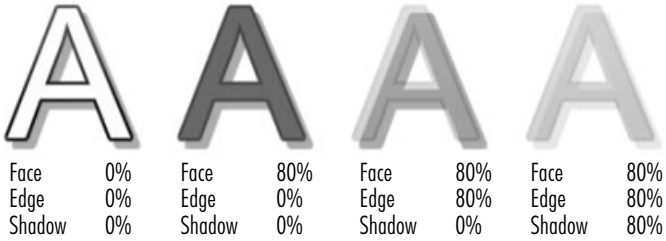
5. Click on the Radial/Linear fill button to select Radial fill and enter 3 in the field beside the Circle/Linear fill button to repeat the fill three times.
6. Click and drag on the second line to select the text "Line two" and select Line from the Character/Line drop-down list.
7. Switch to the graphic layer and draw a rectangle.
8. Repeat steps 4 to 12 for the rectangle.

Using Transparency

Transparency and gradients can be combined with your text and graphic objects to create complex effects.

Transparency

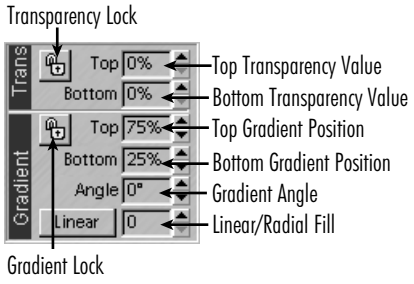
Each text and graphic element (face, edge, and shadow) can have its own transparency value. When working with transparency, it may help you to think of each element as a separate layer. The shadow is on the bottom, the edge is in the middle, and the face is on top. When the face is opaque, the edge is visible only around the outside of the face. However, when the face is transparent, you can see that the edge is actually a solid layer underneath the face. The image below shows you what happens as you change the transparency of each element. You can see that when the face is 80% transparent, the edge is visible underneath it.



Remember that each layout has a total of ten text and graphic layers, a background layer, and a video layer. When you make text and graphic objects transparent, you are only allowing the layers underneath to show through, not cutting through to video. See "Color Options" on page 96 for more information on cutting to video.

Set Classic Transparency Values

You can create semi-transparent elements with different transparency values at the top and bottom of the text element or graphic object.



The transparency Lock button sets the top and bottom transparencies to the same value. If you adjust one value, the other value is changed to match it. A value of 100% is video transparent, a value of 0% is opaque. Any value between these two limits is semi-transparent. The number of transparency levels available depends on your frame buffer.

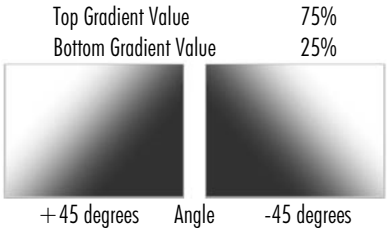
The top and bottom transparency values change the transparency of the element. You can use different percentages to make only part of an element transparent. If you use different transparency values for the top and bottom, the top and bottom edges of the object or text element are the transparency value that you set, and the center of the element is a gradient that moves between the top and bottom values. You can adjust where the gradient starts and the angle of the gradient using the Gradient options.

Identify Transparency

When you are working on a computer screen with no video feed, it can be difficult to identify the semi-transparent areas defined on the Color & Texture tab. When you make an object semi-transparent, CG blends the object color with the color of the object below it. This color change can be subtle with small transparency changes.

To help identify transparent areas, try changing the Video Transparent Pattern setting on the General tab in the Preferences dialog. See "Video Background Basics" on page 62 for details on changing the Video Transparent Pattern setting. Sometimes using a checkerboard pattern or a bright color to represent video transparency makes it easier to detect the blended areas. These patterns do not show up in rendered images or when you do a take. They only appear on your computer screen as markers.

Classic Transparency Gradients



The Gradient options affect both color and transparency gradients. The gradient Lock button sets the top and bottom gradients to the same value. The gradient values indicate how much of the top or bottom of the element uses a pure color, and how much of the element is blended. By default, the gradient values are set to 0% for top and bottom. If you select a top value of 75% and a bottom value of 25%, the top and bottom 25% of the element are a pure color and the middle 50% is blended. The gradient angle rotates a color or transparency gradient by up to 90 degrees, negative or positive. Gradients are defined in 1 degree increments.

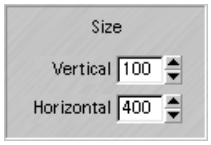
You can combine color and transparency gradients and angles. The only restriction is that gradient position and angle values are applied to both color and transparency gradients.

Use Transparency

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and click on the Background tab.

2 Set your color model to HLS and change the color values to H=357, L=27, S=100. Now, set the Top transparency value to 75 and the Bottom transparency value to 45.

3 Switch to the graphic layer, click on the Size & Attributes tab, and change the Vertical value to 100 and the Horizontal value to 400.



4 Select Rectangle from the Graphic Shape drop-down list and click on the View tab. Now change the Baseline to 20 and the left edge to 17.

5 Switch to the text layer and click on the Size & Attributes tab.

6 Click between the brackets and type the line "Report Heading".

7 Select the Classic type style from the Type Style section. Select Style 9 from the Formatting palette, hold down CTRL, and click on the rectangle.

8 Switch to the Color & Texture tab and use the Color Picker to select the background color as the face color of the rectangle. Now change the Top transparency value to 60, and the Bottom transparency value to 80.

9 Switch to the text layer and change the Bottom transparency value to 60.

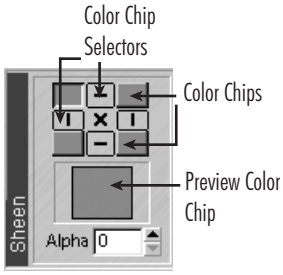
Using Additional Type Style Settings

You can apply very specific and complex formatting to your text using the advanced type style options. You can distort the width and height of characters. Sheen can be applied to both face and edge, and often depth. Apply bevels using the Color Options drop-down list.

Set Multiple Colors and Transparency

You can apply either multiple colors and individual transparency, or textures with transparency and variable color tinting to text elements using the Color Picker options or Texture options on the Color & Texture tab. See "Understanding Text Color" on page 94 and "Defining Additional Textures" on page 132 for details on applying color and textures to text.

Use color chips and color chip selectors to apply color to text. Simply click on a color chip, then select a color and set a Transparency value.

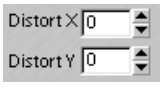


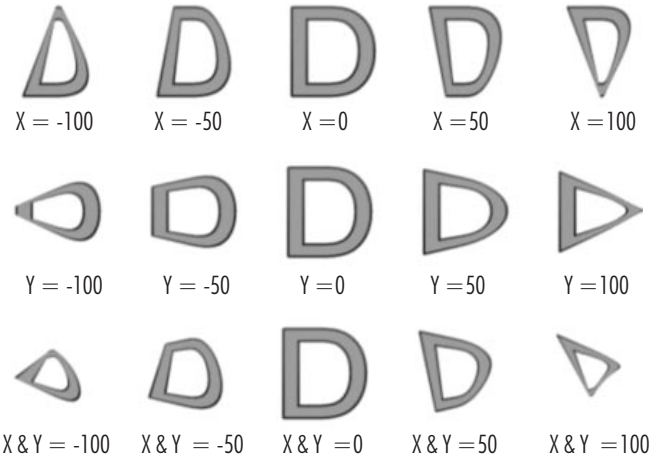
To apply multiple colors and transparency values to several color chips at the same time, click on a Selector for color chip combinations. To select all four color chips, click on the middle Selector. To select the left two color chips, click the left selector. All color chip selectors work in the same way.

Alternatively, press CTRL and click on multiple color chips to select them as a group. You can also drag a color chip to another color chip to copy its color and transparency settings, or right-click on a color chip to copy and paste color and transparency settings. You can review how your text will look using the Preview color chip.

Distort Text

CG provides two ways to change the shape of individual characters in addition to setting a Font Type On Face, you can set Distort X and Distort Y. Distort values warp text along the X or Y axis. The following graphics show you the effects of different distort values.





Color Options

CG provides four color options for many of the text elements: Color Ramp, Bevel, Full Alpha, and Eliminate. You can select color options from the Color Options drop-down list.

Color Ramp displays gradients of color, transparency, and sheen set on the Color & Texture tab.

Bevel displays a two-color gradient and transparency from the element edge using color and transparency values instead of simple shading using a static light source. See "Using Additional Beveled Text" on page 104 for details on beveled text elements.

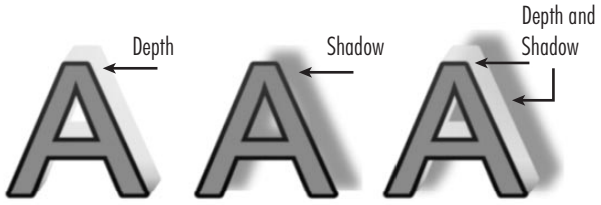
Full Alpha draws the element with 100% alpha. Though the element isn't visible, a full alpha element casts a shadow. Applying the Full Alpha Color Option gives you the same effect as applying the Ghost effect with the Embellished type style.

Eliminate doesn't draw the element at all. Since the element isn't drawn, it cannot take attributes such as shadow. The graphic above shows you the difference between applying the Eliminate and Full Alpha Color Option to the face.

Depth vs. Shadow

Depth creates the illusion of 3-D text by extruding an edge in one direction. Depth does not contain a softness value, but can contain up to four colors and transparency values, or a texture.

Shadows are soft offset highlights of the side of an object opposite an imaginary light source. Shadows follow the shape of the entire object. Shadows contain one color and one transparency value. The graphic below shows you the difference between depth and shadow.



Setting Depth, Shadow, and Sheen

Depth, shadow, and sheen options can make your text look three-dimensional using color, transparency, and texture. Sheen highlights can also make text shiny. Many type styles let you set depth, shadow, and sheen options on the Color & Texture tab.

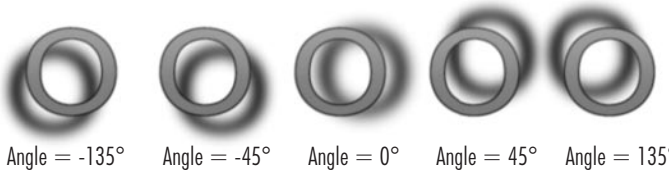
Depth

Depth adds an extruded edge to the combined face and edge. On Depth, depth determines depth size and angle determines where the depth is displayed. The graphic below shows you different depth angle values.

Shadow

Shadows are soft offset highlights of the side of an object opposite an imaginary light source; they follow the shape of the entire object.

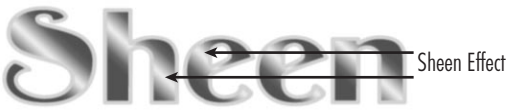
On Shadow, you can set the distance of the shadow from the text using offset. You can also specify the where the shadow is displayed using angle. The graphic below shows you different shadow angle values.



Soft determines how fuzzy, or diffuse the edge of the shadow will be. A softness value near zero gives a hard-edged shadow similar to an offset shadow. A higher softness value gives a diffuse, indistinct shadow. See “Shadow Softness” on page 89 for details. Transparency values can be applied to a shadow by adjusting the Trans field.

Sheen

Sheen refers to a band of color that cuts through the face, edge, or depth, like a focused highlight.



Set the Sheen Color using the Color Picker on the Color & Texture tab. Size, offset, and angle determine the look of the sheen.

Offset determines the sheen's position on the text. The graphic below shows you different sheen offset values.

Offset = -50 Offset = -25 Offset = 0 Offset = 25 Offset = 50

Angle sets how vertical or horizontal the highlight is. The graphic below shows you different sheen angle values in 45 degree increments.

Angle = -90 Angle = -45 Angle = 0 Angle = 45 Angle = 90

All sheen settings, except angle, become unavailable when you apply the Bevel color option to a text element by selecting Bevel from the Color Option drop-down list. When beveling an element, angle adjusts the gradient ratio of the beveled text element.

Apply Depth, Shadow, and Sheen Options

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and make sure the cursor is between the brackets in the CG Editor.

2 Type some text. Select the Recessed type style on the Size & Attributes tab.

3 Switch to the Color & Texture tab. Set each element a different solid color:

Cycle to Face. Set the Face color chips to red.

Cycle to Edge. Set the edge color chips to blue. Set size to 15.

Cycle to Depth. Set the face depth color chips to yellow. Set the depth value to 19 and angle to 72.

Cycle to Shadow. Set the shadow color chip to gray. Set the offset value to 21 and soft to 31.

4 Cycle back to Face. Set the Sheen to bright white. Set size to 8, offset to 4, and angle to 45.

5 Experiment setting sheen highlights to the text edge.

Using Additional Beveled Text

Beveled text gives standard two-dimensional characters a three-dimensional look. Beveling involves s shading text with color and transparency so that it appears three-dimensional. Beveling with color and transparency is available for all type styles except Classic.

Bevel Color Option

You can apply bevels to face, edge, and depth elements. The Bevel option on the Color Option drop-down list displays a gradient of two colors plus transparency. When you select Bevel, only the top two color chips are active. For best results, select a unique color and transparency value for each color chip.

Mix Through to Key Checkbox

The Mix Through to Key checkbox is located on the Size & Attributes tab under the type style radio buttons. When you select the Mix Through to Key checkbox, transparency cuts through to the alpha channel (video) behind any existing background.The element displays the video feed. The graphic below shows you how the transparency mixes to video, represented here by the transparency checkerboard pattern.

When you uncheck the Mix Through to Key checkbox, transparency cuts to any existing background. The right graphic below shows you how the transparency cuts to the background pattern, not to video.

The Mix Through to Key checkbox affects any element with transparency.

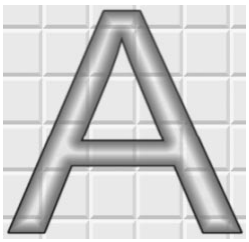
Adjust Color and Transparency Gradients

When beveling text elements, you can adjust the proportion of the two colors and transparency values. When you apply a bevel to an element by selecting Bevel from the Color Options drop-down list, angle adjusts the how much of one color and transparency is used in relation to the other color and transparency. All other sheen highlight options are unavailable. The higher the angle value, the more the inside bevel color and transparency is used to create the bevel effect. The lower the angle value, the more the outside bevel color is used. The graphic below shows you how the color and transparency ratio changes as you adjust angle.

Offset = -25 Offset = 0 Offset = 25

Bevel and Transparency

You can apply transparency values for each bevel color by setting the Trans. field. See "Transparency" on page 69 for details on applying transparency values. The graphic to the right shows you the effect of beveling with one color and one transparency value. Text elements with transparency display the alpha channel (video signal) if the Mix Through to Key checkbox is selected, and display the existing background if the Mix Through to Key checkbox is not selected.



Create a Double Beveled Edge

The Edge Over Face type style draws two beveled edges when you select Bevel from the Color Options drop-down list. Each beveled edge contains two colors and transparency values that can be set individually.

You can set up to four colors and transparency values on the Color & Texture tab. The top two color chips set the inner beveled edge, and the bottom two color chips set the outer beveled edge.

Create a Double Beveled Edge with Transparency

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar. Type the words "Bevel".

2 Switch to the Size & Attributes tab. Use the Move tool to center the line of text and set height to 231, and width to 112%. Select the Edge Over Face type style.

3 Switch to the Color & Texture tab. On Face, set the face to all black.

4 Cycle to Edge. Set the Edge Size to 80. From the Color Options drop-down list, select Bevel.

5 Set the top two color chips to the following values:

chip #1 - H=228, L=82, S=89, Trans=85

chip #2 - H=241, L=18, S=94, Trans=32

6 Set the bottom two color chips to the following values:

chip #3 - H=137, L=88, S=74, Trans=23

chip #4 - H=137, L=35, S=35, Trans=0

7 Set the angle to 47. Notice how the bevel colors change.

8 Switch to the Background tab. Set the background to gold and apply the Bricks background pattern.

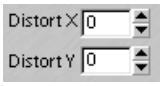
9 Your text should look like the graphic below:

Changing Recessed Settings

The Recessed type style lets you customize every aspect of your text and provides complex depth and shadow details. You can apply color, transparency, or a texture for outline edge, face depth, and body depth.

Face

CG lets you customize the shape, color or texture, and transparency of your text. On Face, adjust the values in the Distort X and Distort Y fields to manipulate the shape of each character. For details on distorting text shape, see "Distort Text" on page 100.



Face On Top Checkbox

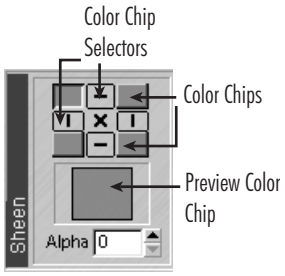
The face can appear on top of all other text elements, or it can appear underneath the edge. On Face, click the Face On Top checkbox to display the face on top of other elements. Clear the Face On Top checkbox to place the face below the edge.

Face on Top Checkbox Not Selected

Face on Top Checkbox Selected

Color and Texture Options

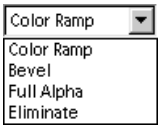
Text elements can each contain up to four colors and four transparency values. Use the Color Picker options to set color chips and transparency values located in the Color section on the Color & Texture tab.



You can apply a texture to the face, edge, or depth elements using the Texture options on the Color & Texture tab. See "Defining Additional Textures" on page 132 for details.

See "Understanding Text Color" on page 94 for details on setting text color and texture. See "Transparency" on page 98 for details on setting transparency.

The Color Options drop-down list, available for many of the text elements, contains four color display options to create complex text: Color Ramp, Bevel, Full Alpha, and Eliminate. See "Color Options" on page 101 for details on each item and "Using Additional Beveled Text" on page 104 for details on creating bevels.



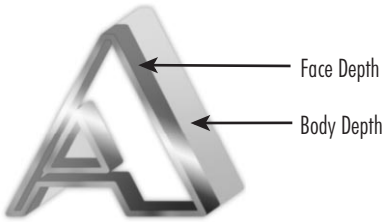
Outline Edge

Outline edge outlines the combined face, edge, face depth, and body depth elements with extra pixels, drawing a hard line around all text without cutting between characters. On Outline Edge, you can set outline edge options. The outline edge can contain up to four colors and transparency values. See "Defining

Additional Textures" on page 132 for details on type style textures. The graphic below shows you how the outline edge outlines the combined text elements.

Face Depth and Body Depth

Face depth adds a hard, extruded edge to the face element. Body depth adds a hard, extruded edge to the face, edge, and face depth elements combined. The graphic to the right shows you the difference between face depth and body depth.



The depth field, on Face Depth, determines depth size. Angle determines where the depth is displayed. See "Depth" on page 102 for details on setting depth angle. Size on Body Depth sets the depth size.

Shadow and Sheen

Shadows are soft offset highlights of the side of an object opposite an imaginary light source; they follow the shape of the entire object. Using Shadow, you can set shadow options. You can also set sheen highlight effects to the text face, edge, face depth, body depth, and outline edge. See "Setting Depth, Shadow, and Sheen" on page 102 for details.

Customize Recessed Type Style

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and make sure the cursor is between the brackets in the CG Editor.

2 Type the word "Wow". Use the Move tool to center the line of text and increase the text size.

3 Select the Recessed type style on the Size & Attributes tab.

4 Switch to the Color & Texture tab. Because Recessed type style is complex, set each element a different solid color.

Cycle to Face. Set the Face color chips to red.

Cycle to Edge. Set the edge color chips to blue. Set size to 15.

Cycle to Outline Edge. Set the outline edge to green. Set the size to 26.

Cycle to Face Depth. Set the face depth color chips to yellow. Set depth to 19 and angle to 72.

Cycle to Body Depth. Set the body depth color chips to black. Set size to 19.

Cycle to Shadow. Set the shadow color chip to grey. Set offset to 21 and soft to 31.

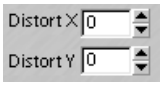
5 Review your text and its complex edges and shadow settings. Once you understand the various text elements, experiment with the Color Options on the drop-down list and the Face on Top checkbox.

Changing Embellished and Edge Over Face Settings

The Embellished and Edge Over Face type styles provide complex depth and shadow details. Embellished lets you create text elements that cast a shadow, but do not contain any color, transparency, or texture values. The Edge Over Face type style emphasizes text edges by layering them on both on top and beside the text face.

Face

You can customize the shape, color, transparency, and texture of your text. On Face, adjust the values in the Distort X and Distort Y fields to manipulate the shape of each character. For details on distorting text shape, see "Distort Text" on page 100.



Color and Texture Options

Text elements can each contain up to four colors and four transparency values. Use the Color Picker options to set color chips and transparency values. You can also apply a texture to face, edge, or depth elements using Texture options on the Color & Texture tab. See "Defining Additional Textures" on page 132 for details on type style textures.

See "Understanding Text Color" on page 94 for details on setting text color and texture. See "Transparency" on page 98 for details on setting transparency values.

The Color Options drop-down list, available for many of the text elements, contains four color display options to create complex text: Color Ramp, Bevel, Full Alpha, and Eliminate. See "Color Options" on page 101 for details on each item and "Using Additional Beveled Text" on page 104 for details on creating bevels.

Depth, Shadow, and Sheen Options

On Depth and Shadow, you can set depth and shadow options. You can also set sheen highlight effects to the face, edge, and depth elements. See "Setting Depth, Shadow, and Sheen" on page 102 for details.

Ghost Checkbox

Using the Embellished type style, you can draw the face, edge, or depth elements that cast a shadow, but do not contain any color, transparency, or texture values. Click the Ghost checkbox to draw an invisible element with a visible shadow. Clear the Ghost checkbox to draw the element with color, texture, and transparency. On Shadow, you must set shadow options, offset, angle, and soft, to use the Ghost effect. Any sheen highlight applied to the element is invisible when you use the Ghost effect.

The Ghost option creates the same effect as selecting Full Alpha from the Color Options drop-down list. See "Using Additional Type Style Settings" on page 100 for details. The graphic below shows you the ghost effect applied to each of face, edge, and depth elements.

Ghost Applied to Face | Ghost Applied to Edge | Ghost Applied to Depth

Tubed Checkbox

To create a tubed bevel using the Embellished type style, apply the Bevel color option to the text edge by selecting Bevel from the Color Options drop-down list. You can select the Tubed checkbox to create a tube effect where color and transparency are beveled from one color to the other color and back to the first color.

The graphic below shows you the difference between a beveled edge and a tubed bevel edge. Both examples use the same face color, but the light tube edge next to the face makes the face in the second example lighter in color. See "Using Additional Beveled Text" on page 104 for more information on beveled text elements.

Beveled Edge Tubed Beveled Edge

Customize Embellished Type Style

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and make sure the cursor is between the brackets in the CG Editor.

2 Type the word "Edges". Use the Move tool to center the line of text and increase the text size.

3 Select the Embellished type style from the Type Style section on the Size & Attributes tab.

4 Switch to the Color & Texture tab. Cycle to Face. Set each of the Face color chips to different shades of red.

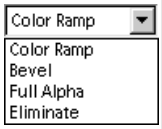
5 Cycle to Edge. Set each of the edge color chips to shades of green. Set the Edge Size to 20.

6 Cycle to Depth and leave the color chips black. Set the depth value to 25 and the Angle to 51.

7 Cycle to Shadow. Set the shadow color chip to gray, set offset to 14, and soft to 12. The shadow begins where the depth ends.

8 Cycle back to Face and select Bevel from the Color Options drop-down list. The face is beveled using the top two color chips you set previously. Change angle located under sheen to adjust bevel amounts.

9 Select Color Ramp from the Color Options drop-down box. Select the Ghost checkbox. The face is drawn without color and transparency, or texture, but the element casts a shadow.



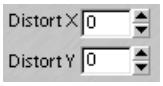
10 Cycle to Edge. Select the Ghost checkbox. The edge is drawn without color and transparency, or texture, but it casts a shadow.

Changing 10 Edges Settings

The 10 Edges type style lets you add up to ten edges to the text face. Each of the ten edges can contain individual color and transparency values as well as a visibility setting.

Face

CG lets you customize the shape, color, transparency, and texture of your text. On Face, adjust the values in the Distort X and Distort Y fields to manipulate the shape of each character. For details on distorting text shape, see "Distort Text" on page 100.

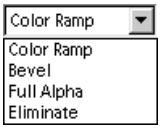


Color and Texture Options

Text elements can contain up to four colors and four transparency values. Use the Color Picker options to set color chips and transparency values. You can also apply a texture to face, edge, or depth elements using Texture options on the Color & Texture tab. See "Defining Additional Textures" on page 132 for details on type style textures.

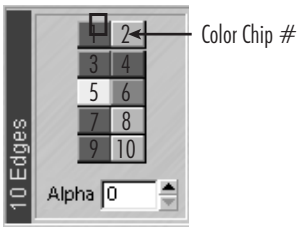
See "Understanding Text Color" on page 94 for details on setting text color and texture. See "Transparency" on page 98 for details on setting transparency.

The Color Options drop-down list, available for many of the text elements, contains four color display options to create complex text: Color Ramp, Bevel, Full Alpha, and Eliminate. See "Color Options" on page 101 for details on each item and "Using Additional Beveled Text" on page 104 for details on creating bevels.



Edge Color and Texture Options

You apply color, transparency, and sheen to each of the ten available edges by selecting a color chip for each edge, and then setting a color with the Color Picker, a transparency value with the Trans field, and setting sheen offset and angle for each edge. You can apply additional settings to the ten edges together: edge size, depth, depth angle, and sheen color and size.

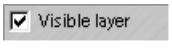


The Edge Size determines the size of each edge.

Depth adds an extruded edge to the combined face and edge. The depth value determines depth size, and the angle value determines where the depth is displayed. See "Setting Depth, Shadow, and Sheen" on page 102 for details on setting depth.

Visible Layer Checkbox

When selected, the Visible layer checkbox draws and displays the selected edge. Clear the Visible layer checkbox to remove the selected edge.



Inside Edge Checkbox

The Inside Edge checkbox places the innermost edge on top of the face, increasing the size of the first visible edge, and decreasing the face size. Click the Inside Edge checkbox to transform the first visible edge into an Inside Edge. Clear the Inside

Edge checkbox to reverse the effect. The graphic below shows you the effect of applying the Inside Edge.

Inside Edge Not Applied | Inside Edge Applied

Depth, Shadow, and Sheen Options

Depth adds an extruded edge to the combined face and edge. Using Edge, you can set depth options.

Shadows are soft offset highlights of the side of an object opposite an imaginary light source; they follow the shape of the entire object. On Shadow, you can set shadow options.

You can also set sheen highlight effects to the text face, to each of the ten visible edges individually, or to all ten edges together. To set individual sheen values, adjust sheen color and size, and then adjust sheen offset and angle values for each of the ten edges. See "Setting Depth, Shadow, and Sheen" on page 102 for details.

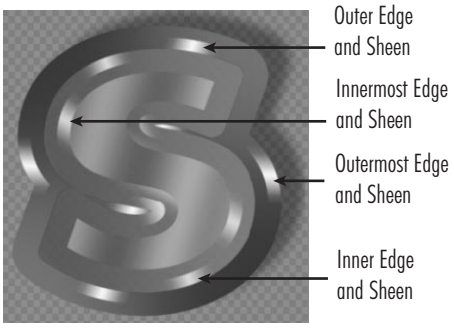
Create Text with Ten Edges

1. Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and make sure the cursor is between the brackets in the CG Editor.
2. Type the following: "10 Ed". Use the Move tool to center the line of text and increase the text size.
3. Select the 10 Edges type style on the Size & Attributes tab.
4. Switch to the Color & Texture tab. Cycle to Face. Together, set all the color chips a bright yellow by clicking the middle color chip selector, then setting an element color.
5. Cycle to Edge. Set size to 51. Assign unique edge colors for each of the ten edges. Edges #6 and #7 also have a transparency value of 29 by default. Reduce transparency to 0 for all edges.
6. Make edges #3 and #7 invisible by first selecting the edge color chip, and then clearing the Visible Layer checkbox to deselect it. The edge next to the invisible edge fills in the missing element.

7. Set depth to 60 and angle to -134. The tenth edge now includes an additional depth element of the same color.
8. Cycle to Shadow. Set the shadow color chip to dark grey. Set offset to 24 and soft to 29. The shadow cast is quite separate from the depth.

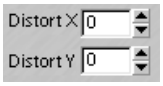
Changing Sheen Settings

The Sheen type style lets you apply sheen highlights on up to four edges. Two inner edges are located on top of the face, and two outer edges are located on the edge. You can adjust the size, angle, and color of each edge's sheen.



Face

CG lets you customize the shape, color, texture, and transparency of your text. On Face, adjust the values in the Distort X and Distort Y fields to manipulate the shape of each character. For details on distorting text shape, see "Distort Text" on page 100.



Color and Texture Options

Text elements can each contain up to four colors and four transparency values. Use the Color Picker options to set color chips and transparency values. You can also apply a texture to the face elements using Texture options on the Color & Texture tab. See "Defining Additional Textures" on page 132 for details on type style textures.

See "Understanding Text Color" on page 94 for details on setting text color and texture. See "Transparency" on page 98 for details on setting transparency.

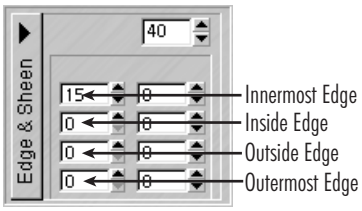
The Color Options drop-down list, available for the face element, contains four color display options to create complex text: Color Ramp, Bevel, Full Alpha, and Eliminate. See "Color Options" on page 101 for details on each item and "Using Additional Beveled Text" on page 104 for details on creating bevels.

Edge & Sheen Toggle

You can apply sheen highlights on up to four edges with individual sizes and angles on Edge & Sheen. On Edge, the size of the combined edges is adjusted using the Edge Size field.

The settings of the four color chips do not correspond to the color of each edge individually. On Face, the four color chips set the color and transparency of the two inner edges together. The four color chips on Edge set the color and transparency of the outer two edges together. Color cannot be applied to individual edges.

Edge & Sheen lets you adjust sheen highlight size and angle for each of the four edges. Size determines the size of the sheen. Angle determines the angle at which the sheen is displayed. The graphic below shows you different sheen angle values.



Angle = -90 Angle = -45 Angle = 0 Angle = 45 Angle = 90

Shadow

Shadows are soft offset highlights of the side of an object opposite an imaginary light source; they follow the shape of the entire object. On Shadow, you can set shadow options. See "Shadow" on page 102 for details.

Customize Sheen Type Style

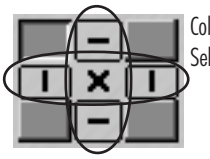
1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and make sure the cursor is between the brackets in the CG Editor.

2 Type the word "Sheen". Use the Move tool to center the line of text and increase the text size.

3 Select the Sheen type style on the Size & Attributes tab.

4 Switch to the Color & Texture tab. Cycle to Face. Set the Face color chips to red.

5 Cycle to Edge & Sheen. Together, set the edge color chips to blue. Set the Edge Size value to 92 by clicking the middle color chip selector, then setting an element color. You cannot tell the difference between the innermost edge and inside edge, and between the outermost edge and outside edge.



Color Chip Selectors

6 Set the sheen color chip to bright white. Set the innermost edge and inside edge size to 28 and angle to -25.

7 Set the outermost edge and outside edge size to 25 and angle to 49. Different edge sheens cut through the edges in a cross pattern. The red face is visible.

8 Cycle to Shadow. Set the shadow color chip to black. Set offset to 27, angle to -37, and soft to 6. Set transparency to 77.

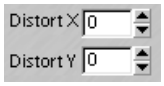
9 Experiment with different edge sheen sizes, colors, and angles.

Changing Neon Settings

The Neon type style creates text with two elements: tube and glow. The tube defines the character shape and the glow radiates out from the tube.

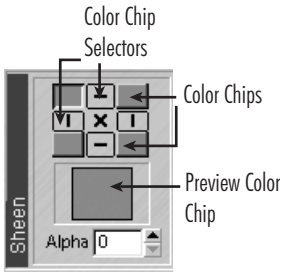
Face

CG lets you customize the shape, color, transparency, and texture of your text. On Face, adjust the values in the Distort X and Distort Y fields to manipulate the shape of each character. For details on distorting text shape, see "Distort Text" on page 100.



Tube Color and Texture Options

The tube forms the outline of each character and can contain up to four colors and transparency values. Use the Color Picker options to set color chips and transparency values. You can also apply a texture using Texture options on the Color & Texture tab.



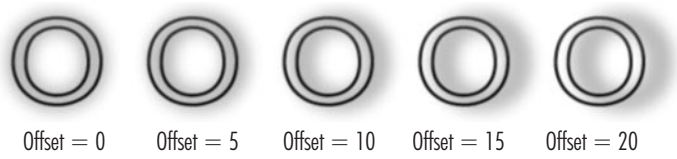
See "Understanding Text Color" on page 94 for details on setting text color. See "Transparency" on page 98 for details on setting transparency.

The Color Options drop-down list, available for many of the text elements, contains four color display options to create complex text: Color Ramp, Bevel, Full Alpha, and Eliminate. See "Color Options" on page 101 for details on each item and "Using Additional Beveled Text" on page 104 for details on creating bevels.

You can adjust the size of the tube using the Tube Size field.

Glow

On Glow, you can adjust the glow options. Glow centers a single color highlight behind the tube. Neon adjusts the intensity of the glow. Offset sets the distance between the glow and the text element. The graphic below shows you different offset values.



You can also set the amount of transparency applied to the glow. See "Transparency" on page 98 for details.

Angle specifies where the glow is displayed. See “Shadow” on page 102 for details on glow angle values.

Soft determines how fuzzy, or diffuse the edge of the glow will be. A softness value near zero gives a hard-edged glow similar to an offset shadow. A higher softness value gives a diffuse, indistinct glow. See “Shadow Softness” on page 89 for details. Transparency values can also be applied to the glow by adjusting the Trans field.

The example below shows you different softness values.

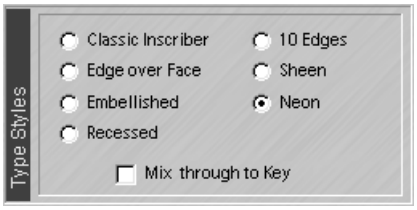
Softness = 0 | Softness = 9 | Softness = 18 | Softness = 29

Customize the Neon Type Style

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and make sure the cursor is between the brackets in the CG Editor.

2 Type the word “Neon”. Use the Move tool to center the line of text and increase the text size.

3 Select the Neon type style on the Size & Attributes tab.



4 Switch to the Color & Texture tab. Cycle to Tube. Set each of the Face color chips to different shades of blue and purple. Next, set edge size to 15.

5 Cycle to Glow. Set the glow color chip a bright yellow. Set soft to 31 and neon to 11. The yellow appears to radiate from behind the tube.

6 Set offset to 14. The yellow glow shifts to the right. Increasing the offset value moves the shadow away from the text element.

7 Experiment with the angle of the shadow by adjusting the angle value.

Manipulating Text Lines

CG uses a number of ways to move lines and keep them positioned correctly. Once you understand how text lines move in relation to each other and how to position single text lines or groups of text lines, you can manipulate text lines more effectively.

Text Line Basics

Text lines are the basic building blocks of CG. Each text line can be positioned individually, using either the mouse or the options on the View tab. The Element menu and the View tab contain all of the commands for positioning text.

Text lines can be linked using the Locked Lines command, but using Locked Lines effectively requires some experimentation. See "Move Groups of Text Lines" on page 118 for details.

Even though text lines are linked by style and formatting groups, these groups only affect the appearance of the text, not the positioning of linked lines.

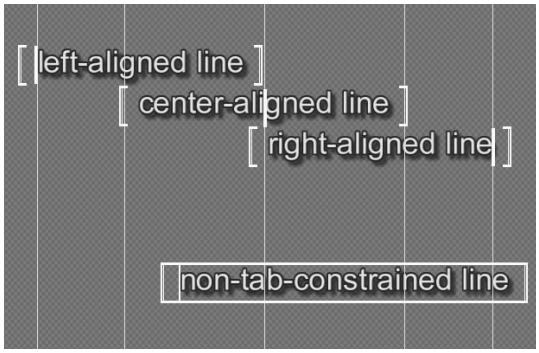
Text in a box and text on a spline are special instances of text. Both move differently from other text lines. See "Using Advanced Text Features" on page 124 for details.

Tab-Constrained vs. Non-Tab-Constrained Lines

All lines are either tab-constrained or non-tab-constrained.

Tab-constrained means that a line is aligned horizontally with a tab stop, but can be moved vertically anywhere on the layout. The number of tabs at the beginning of the text line determines which tab stop it is aligned to. The text line can be left, right, or center-aligned with the tab stop.

In the example to the right, the cursor inside each set of brackets marks the initial insertion point for the text line, and where the text line is aligned to the tab stop.



You can have up to ten tab stops in each layout.

Non-tab-constrained lines are not linked to tab stops, and can be moved vertically and horizontally to any position on the layout.

You can tell whether or not a line is tab-constrained or non-tab-constrained by placing the cursor on the line. Tab-constrained lines are surrounded by open brackets. Non-tab-constrained lines are surrounded by a box.

You can convert a line from tab-constrained to non-tab-constrained, or vice versa, by selecting Element→Constrain→Text to Tabs or by pressing CTRL+TAB.

Move Lines with the Mouse

You can use the mouse to move both tab-constrained and non-tab-constrained lines to new positions in the layout. To move a line, hold down CTRL and drag the line to a new position.

If you are dragging a tab-constrained line, the line only moves vertically. If you are dragging a non-tab-constrained line, the line follows the position of the mouse pointer on the layout.

Move Lines with the Keyboard

You can use the Baseline and Left edge fields on the View tab to position lines exactly using scan lines and pixels. The Baseline value measures the vertical position of the line in scan lines, with 0 at the top of the layout. The Left Edge value measures the horizontal position of the line in pixels, with 0 at the left edge of the layout. If a line is tab-constrained and you adjust the Left Edge value, the line is converted to a non-tab-constrained line.

Layers

Each layout contains ten text layers, which let you create complex displays of overlapping text. You can see what is on each layer, or move to different layers, by selecting Element→Layer Control→Layer List and then clicking on the layer you want to move to. You can also switch to the active layer from the View tab's Layer value field and from the Layer List dialog.

You can move text to another layer using the mouse. Hold down CTRL+SHIFT and drag the mouse pointer up or down. The mouse pointer changes to a double-headed arrow, with the number of the current text layer on the bottom right side of the cursor. Release the mouse button when the changes to the layer you want to move the text line to.

You can also select Element→Layer Control→Push or Pull. Push moves text one layer down (from 3 to 2), Pull moves text one layer up (from 3 to 4).

Position Text Lines

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and type some text on the first line.

2 Switch to the View tab and make sure that the Tab Stops checkbox is checked.

3 Hold down CTRL and drag the line toward the top of the layout until the Baseline value is 60 and place the cursor at the beginning of the text line.

4 Press TAB twice. The line should be center-aligned to the third tab stop.

5 Hold down CTRL and drag the line toward the bottom of the layout until the Baseline value is 275. Hold down CTRL and press TAB to change the text line from tab-constrained to non-tab-constrained.

6 Hold down CTRL and drag the line toward the top left of the layout until the Baseline value is 175 and the Left edge value is 100.

7 Press CTRL+TAB to change the text line from non-tab-constrained to tab-constrained.

8 Using the keyboard, change the Baseline value to 100. The brackets surrounding the text line remain the same.

9 Using the keyboard, change the Left edge value to 140. The brackets surrounding the text line change to a rectangular box. When you adjust the Left edge value, CG automatically changes the line to non-tab-constrained.

Non-Tab Constrained

Tab Constrained

Moving Text Lines

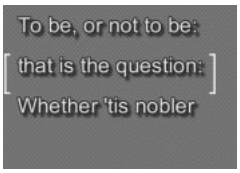
CG provides you with a number of advanced text positioning tools that let you move groups of text lines as a unit, use the mouse to move and resize text lines, and use the arrow keys to accurately position individual text lines.

Move Groups of Text Lines

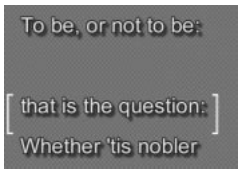
Text lines are individual objects, but you can link some text lines in your layout using Locked Lines. Locked Lines groups lines so that you can move several lines at once. To enable Locked Lines, select Element→Constrain→Locked Lines.

If Locked Lines is not enabled, each line is repositioned separately when you insert a new line, delete a line, or move a line to a new position. If Locked Lines is enabled, lines that follow the repositioned line are moved in relation to it.

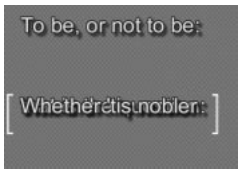
The following example shows what happens when you add a blank line. When Locked Lines is on, all the text lines after the new line move down to make room for the new line. When Locked Lines is off, the line after the new line moves down, but the line already in that position does not move, creating an overlap.



Original Text

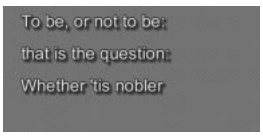


Locked Lines On

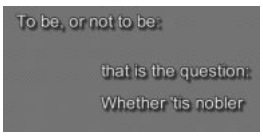


Locked Lines Off

The following example shows what happens when you move a line. If Locked Lines is on, all of the lines following the moved line also move in relation to it. If Locked Lines is off, only the line being moved is shifted.



Original Text



Locked Lines On

Locked Lines Off

Swap Lines

You can reverse the order of two lines of text without altering text attributes. Using the Move tool, click on the first line and copy it (CTRL+C or Edit→Copy). You can then click on the second line and press CTRL+/ (backslash).

Nudge Text Lines

You can use the arrow keys on the keyboard to move lines one pixel at a time in any direction. Moving tab constrained text changes it to non tab constrained.

To nudge a line one pixel at a time, select the line, hold down the ALT key, and press one of the arrow keys to nudge the line. Each time you press an arrow key, the line moves one pixel in the specified direction.

Hold down ALT+CTRL and press an arrow key to move selected objects 10 pixels in the specified direction. Hold down ALT+SHIFT and press the up or down arrow key to move selected objects up or down a line height.

Use the Mouse to Move and Resize Text

The mouse pointer can be used to resize, rotate, and move lines of text. When you perform any of these actions, the cursor changes shape.

Action	Cursor	Method
change text width and height		• click on the top of the bounding bracket and drag the mouse pointer to a new size
change text width		• click on the middle of the bounding bracket and drag the mouse pointer to a new width
rotate line		• click on the bottom of the bounding bracket, hold down CTRL, and drag the line to a new angle
move text to new layer		• hold down SHIFT+CTRL, click on the text, and drag the mouse up or down to change the layer
move line to new position		• Click the Move tool located on the Formatting Palette • hold down CTRL and drag the mouse to a new position; tab-constrained lines can only move vertically, non tab-constrained move anywhere

Text width and height remain proportional as you size them, unless you click on the Lock button on the Size & Attributes tab. The Lock button lets you adjust the height and width together. See "Adjust Font Size" on page 78 for details.

Resize and Reposition Text

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and type some text on the first text line.

2 Switch to the Size & Attributes tab and move the cursor over the bracket on the right side of the text. The cursor changes to a white rectangle with left and right arrows.

3 Click and drag to the right to adjust the width of the text line. Look at the Width value on the Size & Attributes tab to see the new setting.

4 Position the cursor over the top corner of the bracket on the right side of the text. The cursor changes to a white square with arrows pointing to the four corners.

5 Click and drag up to adjust the height of the text line. If the text size Lock is on, both the height and width are adjusted. If the Lock is off, only the height is adjusted.

6 Place the cursor over the text line and hold down CTRL. Now, click and drag the text line to move it up or down.

7 Press CTRL+TAB to change the line from tab-constrained to non-tab-constrained. Place the cursor over the text line and hold down CTRL and click and drag the text line to move it anywhere on the layout.

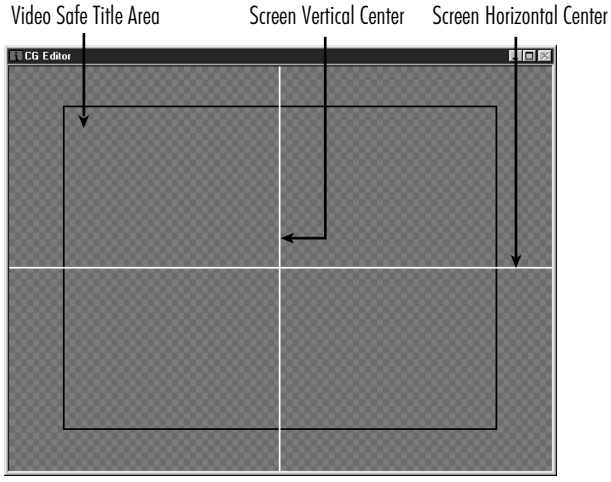
8 Press CTRL+TAB to change the line back to tab-constrained. Now, move the cursor over the bottom corner of the bracket to the right of the text. The cursor changes to an arrow with an arc on the stem. Click and drag to rotate the text.

Working with Markers

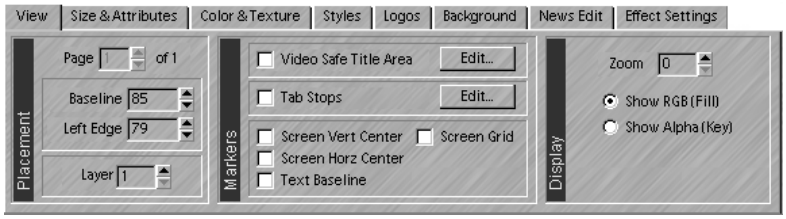
CG offers you a number of ways to organize your layouts and control where text appears on your output monitor.

What are Markers?

Markers indicate specific areas or positions on the screen, such as the Video Safe Title Area, tabs, and screen centers.

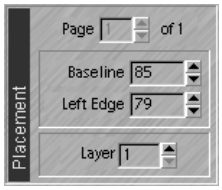


You can select and modify your markers using the options on the View tab.



When you modify markers, you are modifying them globally. If you make changes to the markers in your current layout, you are also changing the markers in all of your layouts—both existing and new.

View Placement Options



The placement options on the View tab provide information about the layout, and allow you to position text and graphic objects by entering numeric values for the baseline and left edge.

The Page field identifies what page of a roll or crawl you are on, and gives the total number of pages in the roll or crawl layout. The Baseline field lets you move the selected line vertically by changing the location of its baseline. The Left Edge field lets you move the selected line horizontally by changing the location of its left edge. You can either enter a specific value in the field, or you can place your cursor over the field, click on the field, and drag the cursor up or down to change the

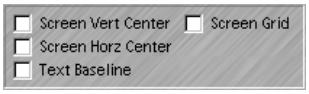
value. The Layer field changes the layer that the text cursor is on. Changing the layer number on the View tab does not move any selected text to another layer, it only changes the layer that new text is placed on.

Video Safe Title Area

Check the Video Safe Title Area checkbox to display the green rectangle that marks the frame buffer area where text is legible on a typical television screen. The green rectangle serves to remind you that any text appearing outside the Video Safe Title Area may not always be visible on all televisions. The right edge of the rectangle also determines the point at which Word Wrap moves words down to the next text line.

You can change the boundary values for the Video Safe Title Area by clicking on Edit beside the Video Safe Title Area checkbox. In the Edit Safe Title Area dialog, select the boundary to change and drag the Slider to a new value. The CG Editor is updated as you drag the Slider. Safe title values are defined as a percentage of the total frame buffer area.

Baseline and Center Markers



The Text Baseline checkbox displays the baseline of the selected line. Selecting the Screen Vert Center checkbox displays a thin line marking the vertical center of the screen. Selecting the Screen Horz Center checkbox displays a thin line marking the horizontal center of the CG Editor.

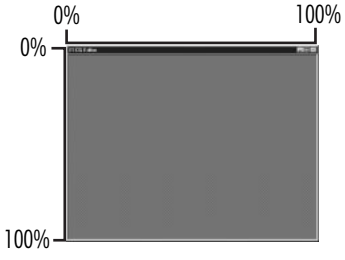
Screen Grid

Checking in the Screen Grid checkbox displays a grid of thin dashed lines in the CG Editor. Each square of the grid is 16 scan lines high by 16 pixels wide.

The screen grid is intended as a reference only. You cannot change the grid size, but there is a snap-to functionality associated with the screen grid. See “Use the Grid” on page 146 for details on aligning objects to the screen grid.

View and Modify Markers

1. Select the Documentation Template from the Templates registry drop-down list on the CG toolbar.
2. Switch to the View tab and click on the Video Safe Title Area checkbox to view the Video Safe Title Area. Click on Edit beside the Video Safe Title Area checkbox to adjust the Video Safe Title Area.
3. Adjust the edges of the Video Safe Title Area by clicking on the edge you want to adjust and dragging the Slider to a new position. The Slider represents the width or height of the screen area. Click on OK when you finish.
4. Click on the Video Safe Title Area checkbox to hide the Video Safe Title Area markers.
5. Now, click on the Screen Vert Center checkbox to display a vertical line marking the vertical center of the screen and click on the Screen Horz Center checkbox to display a horizontal line marking the horizontal center of the screen.
6. Click on the Text Baseline checkbox to display the text baseline. The text baseline moves as you adjust the baseline value.



Using Tabs and Text Entry Features

Text entry features let you enter and modify text quickly in CG. Tab stops let you align text in a variety of ways, and word wrap automatically shifts words onto the next line when the current line is filled.

Tab Stops

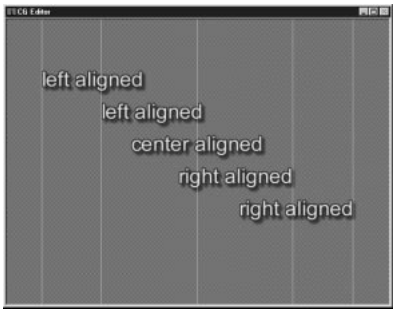
CG has ten tab stops that you can set to any position or alignment in your layout. Click on Tab Stops on the View tab to display the five default tab positions in your current layout.

Tab stops 6 to 10 are not visible on the default layout because their default positions are at the right edge of the layout. You can move them into new positions using the Tab Stops Edit button on the View tab.

Each tab has two properties: position and alignment. Position is the horizontal location of the tab stop in the layout. Alignment defines how the line is justified at that tab stop. By default, tab stops 1 and 2 are left-aligned, tab stop 3 is center-aligned, and tab stops 4 and 5 are right-aligned.

You can change the position or alignment of any tab by clicking on Edit beside the Tab Stops checkbox. To change a tab stop position, click on its number and move the Edit Tab Position & Alignment dialog's Slider to a new position. To change a tab stop's alignment, click on an alignment button. Update the layout with the new settings by clicking on Apply then on OK.

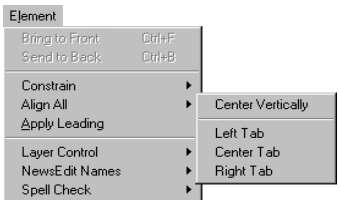
CG's default template has five of the tab stops set up for you. The example to the right shows you where the tab stops are set and what their alignments are.



Each tab stop can only be positioned between the tab stops on either side of it. They cannot cross over each other. For example, tab stop 3 must always be to the right of tab stop 2 and to the left of tab stop 4. Tab stop 3 can never be positioned further left than tab stop 2 or further right than tab stop 4.

Align Text to Tabs

The Element menu aligns text to specific tab positions. Center Vertically centers the text so that the vertical midpoint of each line is at the center of the screen. Centering text vertically doesn't change the leading between lines.



Left Tab aligns all text lines with tab stop 1. Center Tab aligns all text lines with tab stop 3. Right Tab aligns all text lines with tab stop 5.

Word Wrap

Word wrap lets you control whether or not text wraps down to the next line when you reach the right edge of the Video Safe Title Area. If Word Wrap is on, any words that do not fit inside the Video Safe Title Area on the current line are moved to the next line.

Word Wrap is a text entry feature, not an editing feature. If you delete a word from a line, subsequent lines are not automatically reformatted to remove the extra space. However, if you delete the return at the end of the line that you removed text from, the text from the next line is moved up to the cursor and all subsequent text that was on the next line is reflowed.

You can turn Word Wrap on or off by selecting Constrain→Word Wrap from the Element menu.

Re-Wrap Selected Text

If you edit text on a layout and want to re-wrap the lines to remove spaces, you can use Element→Re-Wrap Selection to reflow the text.

CG only rewraps selected text. If you simply click on a line, CG does not re-wrap the text on the layout.

To rewrap text, click and drag on the text you want to re-wrap. Next, select Element→Re-Wrap Selection. CG re-wraps the highlighted text.

View and Modify Tab Stops

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar.

2 Switch to the View tab and click on the Tab Stops checkbox to show the tab stop positions and click on Edit beside the Tab Stops checkbox.

3 Set the position of the first tab stop to 0% by selecting the tab stop and dragging the Slider to a new position. The Slider within the Edit Tab Position % Alignment dialog, represents the width of the screen area. Align Right, Center, and Align Left change how text is aligned to the tab stop.

4 Now, set each subsequent tab stop to a setting 5% higher than the last tab stop. Tab stop 2 should be at 5%, tab stop 3 should be at 10%, and so on.

5 Change the alignment of tab stop 4 by clicking on Center and click on OK when you finish.

6 Click on the Tab Stops checkbox to hide the tab stop positions.

Using Advanced Text Features

Advanced text features let you add more complexity to your layouts. You can create text boxes that are separate from the rest of your text, text that follows a curving spline path, or text that appears vertically. When you are finished with a layout or a job, you can also spell check it, to make sure that no errors have crept into your layout.

Work with Text Boxes

You can create a separate text box on any graphic layer that contains a string of text that is constrained to the dimensions of the box. When you change the size of the box, the text is automatically reflowed to fit into the new dimensions.

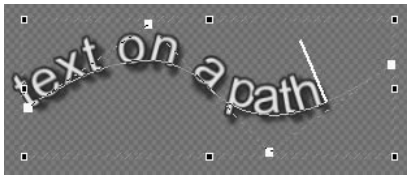
To create a text box, select the Text Box tool from the Formatting palette, draw a box in your layout, and enter text inside it. The graphic below shows you the same text in two different sized boxes. In the second box, the text has been automatically reflowed to fit the new dimensions of the text box.

Text in a text box always appears below any text lines on the same layer. The text box is actually located on the graphic layer, even though it is a text object. To edit an exiting text box, make sure that you are on the graphic layer and then click on the text box.

Place Text on a Path

You can place text along a curved path in order to create more complex layouts. CG creates a default path, called a spline, that you can modify to any kind of curve. Text that you enter automatically shifts position to follow the path when you make changes.

To create a text path, select the Text Path tool from the Formatting palette. You can then draw a box in your layout and enter text along the default path.



The basic path has four control points in addition to grab handles on the corners of the bounding rectangle. Click on any control point and drag it and change the path shape. To add another control point, click on an existing control point and press CTRL+SPACEBAR. The new control point appears on top of the old one, and can be dragged to a new position. To delete a control point, click on it and press CTRL+BACKSPACE. Increase letter kerning up to 35% to force text to follow tight curves.

You can reset your text path to the default spline by selecting Element→Constrain→Default Spline from the CG menu bar or by selecting Constrain→Default Spline from the right-click menu.

Text in a Circle

You can also change your text path to a circle by selecting Element→Constrain→Circle from the CG menu bar or by selecting Constrain→Circle from the right-click menu. You may need to adjust the bounding box to form a square (SHIFT+drag) in order to create reasonable circles.

Vertical Text Processing

Vertical text processing is used mainly for double byte languages such as Chinese, Japanese, and Korean, but it can be used with any language and any font. It allows you to enter characters from top to bottom, right to left on a layout.

To activate vertical text processing, select Element→Layer Control→Vertical Text Processing. You can switch between normal text processing and vertical text processing by pressing ALT+V. Vertical text processing can only be used with still and roll layout types. On a still, lines automatically wrap from the bottom to the top of the layout. On a roll, you must press ENTER to move to the top of the next column of text.

Check Text Spelling

You can check text spelling at any point by selecting Element→Spell Check and then Word, Layer, or Job. Word checks spelling of the selected word, Layer checks spelling of the selected layer, and Job checks all layers on all layouts in the Play List. See "Using the Spell Checker" on page 126 for details.

Enter Text on a Text Path

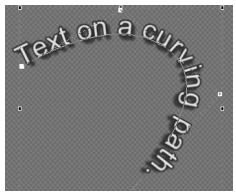
1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and click on the Text Path tool on the Formatting palette.

2 Draw a large box on the layout and type the words "Text on a curving path."

3 Click on the grab handle in the middle of the bottom line of the bounding rectangle and drag it toward the top of the screen. Your text path should look like this:

4 Click on the last control point and drag it toward the bottom left corner of the layout, so that the path forms an arc.

Your text path should look like this:



5 Click on the second control point of the text path and press CTRL + SPACEBAR.

6 Drag the new control point toward the top right corner of the layout.

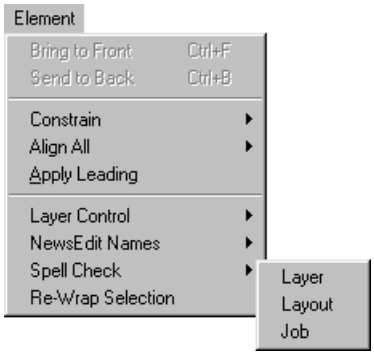
Your text path should look like this:

Using the Spell Checker

In CG, you can use the Spell Checker to check the spelling accuracy of your layouts. You can check your spelling on a layer, in a single layout, or throughout an entire Play List. You can also add custom terms to the Spell Check dictionaries, and customize the Spell Check options.

Spell Check Text

You can spell check your text in a number of ways. The options on the Element menu let you check a single layer, an entire layout, or an entire job. Text on a spline and text in a box can also be spell checked in CG.



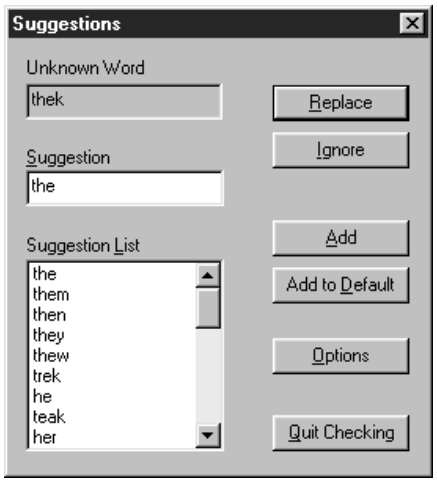
When you check the text on a layout, CG checks all of the layers, as well as any text in a box or on a spline. When you check the text in a job, CG checks all of the layers in each layout, starting with the first layout in the Play List.

If the Spell Checker does not find a spelling error, you will not see the Spell Check dialog.

However, if the Spell Checker does find a spelling error, it opens the Spell Check dialog. The dialog lets you correct your spelling and manage your Spell Check dictionaries and options.

Use the Spell Check Dialog

Using the Spell Check dialog, you can choose to ignore the spelling error, or you can correct it using the options available.



The incorrectly spelled word appears in the Unknown Word field. CG displays a primary suggestion, along with a list of other possible words. To use the primary suggestion, click on Replace.

To use a word from the Suggestion List, click on the word and then click on Replace. You can also double-click on a word in the Suggestion List. Double-clicking replaces the spelling error with the new word.

CG does not update the spelling in your layouts until the entire spell check is done.

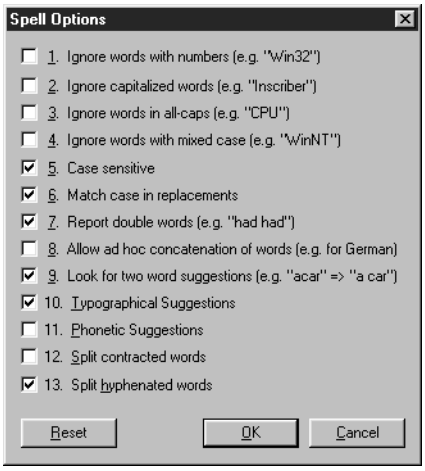
Add Words to Dictionaries

You can add industry-specific terms or names that you use consistently to any active dictionary.

If you click on the Add to Default button, the word is added to the default dictionary and does not appear as a spelling error again. If you click on Add, you can select the dictionary file that the word is added to.

Spell Check Options

You can select a number of options that modify how the Spell Checker selects misspelled words. Click on the Options button to view the list. Options that are checked are enabled. Some options are enabled by default.


Spell Options
1. Ignore words with numbers (e.g. "Win32")
2. Ignore capitalized words (e.g. "Inscriber")
3. Ignore words in all-caps (e.g. "CPU")
4. Ignore words with mixed case (e.g. "WinNT")
5. Case sensitive
6. Match case in replacements
7. Report double words (e.g. "had had")
8. Allow ad hoc concatenation of words (e.g. for German)
9. Look for two word suggestions (e.g. "acar" => "a car")
10. Typographical Suggestions
11. Phonetic Suggestions
12. Split contracted words
13. Split hyphenated words
Reset
OK
Cancel

The graphic to the right shows you the options that are enabled by default. You can check options to make them active, or uncheck them to make them inactive.

When you have set up the spell check options that you want to use, click on OK. The new set of options becomes active immediately. You do not need to quit the Spell Checker first.

You can click on Reset on the Spell Options dialog to reset the options to their default state.

Spell Check a Layout

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and type the following text on the layout, including the spelling mistakes:

Thies is a test of the spell cheking system.

This second line is loctaed on the thrd layer.

2 Select Element→Layer Contol→Layer List.

3 Click on the start of the second line of text, hold down SHIFT+CTRL and drag the mouse pointer up to move the text line to the third layer. If the second line fills more than one text line, move the second half of the line to the third layer.

4 Click on layer one on the Layers palette and select Element→Spell Check→Layout.

5 Select "This" from the suggestion list and then click on Replace to correct the first spelling error in the text.

6 Click on Replace to correct the second spelling error in the text.

7 Click on Replace to correct the third spelling error in the text.

8 Click on Replace to correct the fourth spelling error in the text.

CG does not update the layout with corrected spelling until the spell check is complete. After you click on Replace to correct the fourth spelling error, CG finishes the spell check and, after finding no other errors, updates the entire display with the corrected spelling.

9 When you are checking a job, each layout is generally updated after it has been checked.

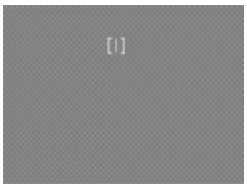
Importing Text

For layouts involving large amounts of text, like roll or crawl layouts, you may find it more convenient to create your text in a word processor and then import it into the layout.

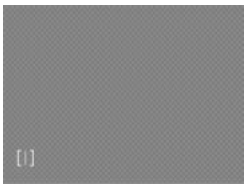
Prepare a Roll or Crawl Layout

You should prepare your layout before you create the text you want to import into the layout. If you prepare your layout first, you can figure out how many characters fit on each line, and set up your word processor accordingly.

Position the first line of your roll or crawl. Hold down CTRL and drag the first line to the correct position. If you don't type any text into the layout, the first line is marked by two brackets surrounding a flashing cursor. Your first line can be either tab-constrained, or non-tab-constrained. You can also use tabs to position the insertion point at a tab stop. See "Using Tabs and Text Entry Features" on page 122 for details.



First Line for Roll Layout



First Line for Crawl Layout

Once the first line is positioned properly, you can save the layout as a template if you are going to create more rolls or crawls using the same defaults. See "Moving Text Lines" on page 118 for details on positioning lines of text. See "Using Templates" on page 156 for details on creating templates.

You can also determine how many letters you can safely use per line by entering a line of random characters. Remember that if you are using a proportional font, the letter "m" takes up more room than the letter "i".

Prepare a Roll Text File

In your word processor, you can set the margins based on the number of characters each line in your layout can hold. CG automatically wraps lines if they are too long, but you may want to control your line breaks manually.

Enter the text you want to use for the roll, including returns at the end of each line. If you want the text positioned at a tab, enter the correct number of tabs at the start of the line. CG rolls can support up to 50 pages of text.

CG uses standard ASCII keyboard mapping, so you can use accented characters and special copyright and other symbols in standard ASCII fonts. If you use other display fonts, you won't see your special characters until you change the font of those characters in CG to match the original creation font.

Once your text has been entered, save it as a.txt file. If your word processor gives you a choice, save the text with line breaks. CG can import ANSI, ASCII, or DOSText formats.

Import a Roll Text File

When you import a text file, CG discards all text formatting except for line breaks, and applies the style or color group of the current line to all imported text. Text is inserted at the current cursor location.

You can import your text file by selecting File→Import→Import Text and then selecting the filename that you saved the text file under.

Prepare a Crawl Text File

CG ignores all line breaks created in a word processor, and imports text on a single line. Enter the text you want to use for the crawl. If you want the text positioned at a tab, enter the correct number of tabs at the start of the line. CG crawls can support more than one line of crawl text, but you should create each line as a separate text file.

CG uses standard ASCII keyboard mapping, so you can use accented characters and special copyright and other symbols in standard ASCII fonts. If you use other display fonts, you won't see your special characters until you change the font of those characters in CG to match the original creation font.

Once your text has been entered, save it as a .txt file. If your word processor gives you a choice, save the text without line breaks. CG can import ANSI, ASCII, or DOSText formats.

Import a Crawl Text File

When you import a text file, CG discards all text formatting, and applies the style or color group of the current line to all imported text. Text is inserted at the current cursor location.

You can import your text file by selecting File→Import→Import Text and then selecting the filename that you saved the text file under.

Import Using the Clipboard

You can also import text from any Windows program using the clipboard. From your text editor or word processing program, copy the text to the clipboard. Switch to CG/S and select Edit→Paste to paste your text into the current layout at the cursor.

Import Roll Text

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and switch to the View tab.

2 Check the Video Safe Title Area checkbox.

3 Hold down CTRL and drag the first line up to the top left of the layout, just inside the video safe area.

4 Press TAB twice to align the text insertion point with the third tab stop, which is centered in the layout. If the text line doesn't look centered within the video safe area, click on the Tab Stops Edit button on the View tab and adjust the placement of the third tab stop.

5 Type this text on the first line of the layout:

23abcdefghmmmnopqrstuvwxyz

The text should all fit on the first line, and be centered in the layout. If the text is too large to fit on a single line, reduce the height of the text on the Size & Attributes tab.

Using this as a guide, you can see that each line should be a maximum of 26 characters long.

6 Delete the text you just typed in and select Roll as your layout type from the CG toolbar.

7 In your word processor, enter the numbers one to twenty, each number on a separate line. (one, two, etc., not 1, 2) and save the file as Numbers.txt.

8 In CG, click on the first line in the layout and select File→Import→Import Text.

9 Select Numbers.txt from the Open dialog to import the .txt file.

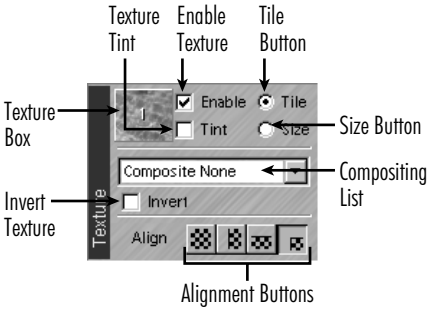
Defining Classic Textures

Textures are image files applied to the surfaces of text and graphic objects. Textures can replace colors defined for objects, or they can be blended with colors for a subtle effect.

CG keeps track of the textures used in each layout in the Texture Map dialog. You can use any bitmap image as a texture. CG is shipped with sample texture images on the CD ROM. Images that are suitable as textures are also available from other sources.

Texture Options

All of the texture options are found on the Color & Texture tab. Clicking on the texture box lets you select a texture from the texture map. In order to apply the texture to the current object, you must click on the Enable Texture checkbox.



See "Mapping and Compositing Classic Textures" on page 134 and "Using Classic Textures" on page 136 for details on using the texture options.

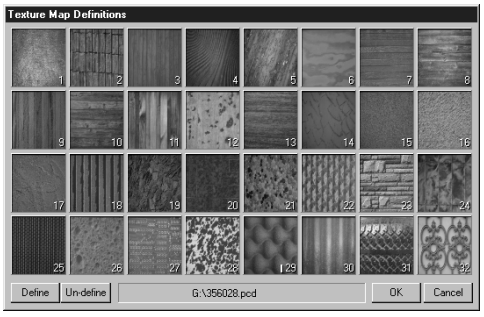
Texture Map

Before you can apply textures to text and graphic objects, you need to add them to the texture map.

The texture map keeps track of textures used in a layout. Each layout has its own texture map, and the texture maps are not interchangeable. When you apply a texture on the Color & Texture tab, the texture number from the map is recorded, and that texture is applied to the object.

To add a texture to the texture map, click on the texture box. CG opens the Texture Map dialog. Click on a slot and then click on Define, or double-click on a slot to display the Open Image dialog. Select the image you want to use as a texture. You can use images in any of the supported bitmap formats as textures. When you select OK, CG inserts an image thumbnail of the texture image into the appropriate slot in the texture map. A Basic_textures folder in your CGS 41 folder contains JPEG images you can use as sample texture maps.

If you change the texture in a slot, the new texture is applied to all objects formatted with that texture number. In a complex image, you can change the texture on the texture map and have your change ripple through the layout.



You can insert several images into the texture map at a time. Images are

inserted in the map beginning at the selected slot. Any slots after the selected slot that contain textures are overwritten by the new textures.

You can replace any texture in the map by clicking on it and selecting a new image. To undefine an image and leave the slot blank, select the texture and click Undefine. If the old texture was used anywhere in the layout, it is removed and replaced with the current color definition the next time the image is redrawn or rendered. If an image cannot be found on the specified path, CG looks in the Samples folder directly below the CG/S program files. Any missing textures appear as black and grey bars in the texture slot.

Textures from the Scrapbook

Items in the Scrapbook can be used as textures. Select Use Texture from the Scrapbook right-click menu to add the current Scrapbook item to the texture map. If the current Scrapbook item is a layout, it is rendered to bitmap format before being added to the map. If the current Scrapbook item can't be used as a texture, the option Use Texture doesn't appear in the right-click menu.

Texture images from the Scrapbook are saved as part of the layout file, since they may not exist anywhere else on disk. Layout files saved with texture images are much larger than layout files saved without texture images. You can reduce the size of these layout files by saving the image to disk instead of using it from the Scrapbook.

Define and Change Textures

1 Draw a rectangle in the layout and click on the Color & Texture tab.

2 Click on the Texture box and select the first blank slot on the Texture dialog. Click on Define.

3 Select a graphic file to use as a texture. If you don't have your own graphic files, you can find some basic textures on the CG/S CD ROM in the Materials folder. Click on Open.

4 Click on the second blank slot on the Texture dialog and click on Define.

5 Using the SHIFT + CTRL keys, select several graphic files to use as textures. Click on Open.

6 Select a filled slot and click on Undefine. The filled spot instantly becomes empty.

7 Select the texture map you wish to display in your layout. Click on OK. The selected texture appears in the texture box.

8 Click on the Enable checkbox next to the Texture box.

9 Use the color selection tools to select a color and click on the Tint checkbox.

10 Click on Size and then click on Tile to see the difference in the way CG sizes the texture.

11 Choose Composite Red from the drop-down list to make part of the texture transparent or select Composite None from the drop-down list to make the texture opaque again.

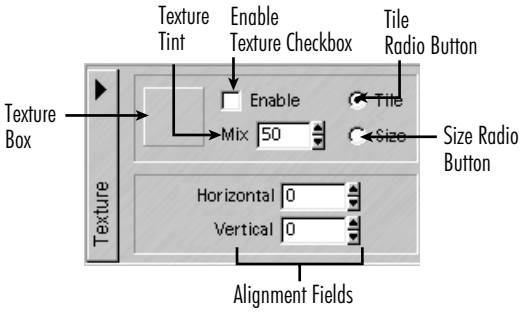
Defining Additional Textures

Textures are image files applied to the surfaces of text and graphic objects. Textures can replace colors defined for objects, or they can be blended with colors and transparency for a subtle effect.

CG keeps track of the textures used in each layout in the Texture Map dialog. CG is shipped with sample texture images. You can also create your own textures in Logo Compose.

Texture Options

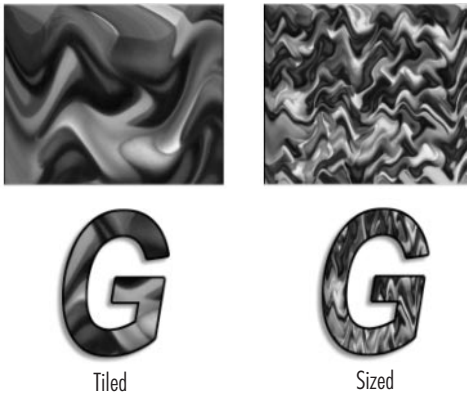
You can access the texture options by toggling between the Color Picker options and the texture options on the Color & Texture tab. Clicking on the texture box lets you select a texture from the texture map. In order to apply the texture to the current object, you must click on the Enable Texture checkbox.



See "Texture Map" on page 130, "Textures from the Scrapbook" on page 131, and "Apply Textures" on page 136 for details on using textures with type styles.

Texture Mapping

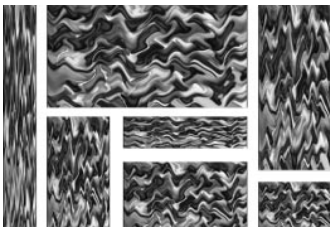
Texture mapping modifies the way a texture is placed on an object or text. The Tile and Size options on the Color & Texture tab let you control texture mapping. The graphics to the right show you the difference between tiled and sized textures applied to the text face.



The Tile option uses the texture at its original size and tiles it as necessary to fill the entire layout area. The texture is visible only on the section of the element you applied it to. If you move the element, a different part of the texture is visible. The texture does not move along with the element.

You can use the Horizontal and Vertical alignment fields to place the top left corner of the texture at different positions in relation to the object. See "Using Classic Textures" on page 136 for details.

The Size option scales the selected texture so that it fits onto the text element. Because the entire texture must fit, the texture may appear distorted. The example to the right shows you the same texture applied to the face element of various rectangles.



Tint a Texture

Textures can be tinted with multiple colors and transparency using the Color Picker options, the color chips, and the Trans field.

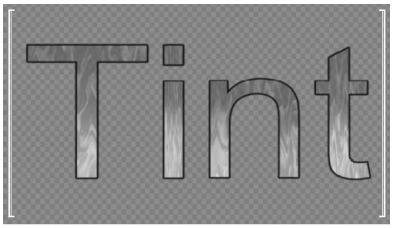
The Tint option blends the colors in the texture image with selected color and transparency values. For example, if the face is set to blue and purple, both blue and purple are combined with the colors in the texture image.

You can adjust the color and transparency tint applied to a texture. To apply a tint to a texture, you must adjust the value in the Mix field. The Mix.eld changes the proportion of color, transparency, and texture. A value of 100 displays the texture without color and texture tint. A value of 0 displays only color and transparency without texture. The graphic below shows you how adjusting the Mix value changes the ratio of color and transparency to texture.

Mix = 0 Mix = 50 Mix = 100

Apply and Tint a Texture

1. Select the Documentation Template from the Templates registry drop-down list on the CG toolbar. Type the word "Tint".
2. Use the Move tool to centre your text vertically. On the Size & Attributes tab, set the text Height to 318 and the Width to 111%. Select the Embellished type style.
3. Switch to the Color & Texture tab. Cycle to Edge and set edge size to 10, and all four color chips to black using the middle color chip selector.
4. Cycle to Face. Cycle to Texture. Click on the Texture box and select the first blank slot on the Texture dialog. Click on Define.
5. Select the abstrawav.jpg file from the CGS 41\samples folder to use as a texture and click on Open. Select the Size radio button. The vertical and horizontal tile options are unavailable.
6. Cycle back to Color Picker. Set the top two color chips to bright red and set Trans to 42.
7. Set the bottom left color chip to yellow and the bottom right color chip to orange.
8. Set Mix to 41.
9. Your text should look like this:

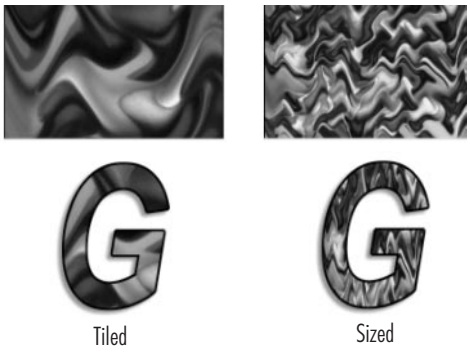


Mapping and Compositing Classic Textures

Several CG options let you control and modify the appearance of textures.

Texture Mapping

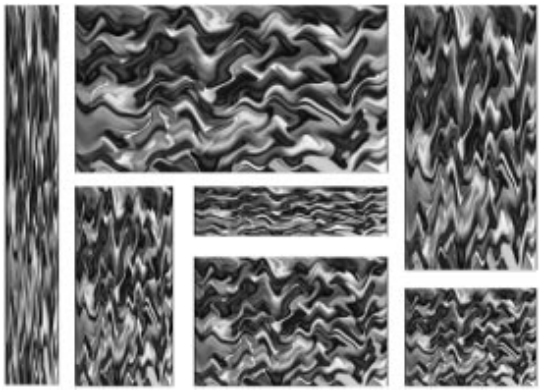
Texture mapping modifies the way a texture is placed on an object. The Tile and Size options on the Color & Texture tab let you control texture mapping. The graphics on this page show you the difference between tiled and sized textures applied to the face of both a text object and a graphic object.



The Tile option uses the texture at its original size and tiles it as necessary to fill the entire layout area. The texture is visible only on the element of the object with the texture applied, but if you move the object, a different part of the texture is visible. The texture does not move along with the object.

You can use the alignment options to place the top left corner of the texture at different positions in relation to the object. See "Using Classic Textures" on page 136 for details.

The Size option scales the selected texture so that it fits onto the object. Because the entire texture must fit onto the object, the texture may appear distorted. The example to the right shows you the same texture applied to the face of various rectangles.



Tint a Texture

The Tint Texture option blends the colors in the texture image with the current color for the object element being textured. If the face is blue, that blue is combined with the colors in the texture image.

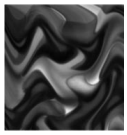
The degree of tinting depends on the color definition you select. The tint follows a linear curve measured from a neutral color of 50% gray. If you tint a texture using 50% gray, the full colors of the texture are visible. As the color definition moves away from 50% gray, more and more of the selected color is visible. The maximum tint value is about 65%.

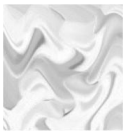
Composite a Texture

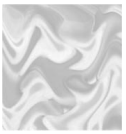
You can use compositing to manipulate the transparency of the object based on the colors in the texture. Compositing is available for Classic type styles only. Compositing uses the red, green, or blue channel in the image to make part of the image transparent. The selected channel masks out the alpha channel. Select a channel to composite from the Compositing Type drop-down list.

If you composite using red, for example, the amount of red in a pixel determines how transparent the pixel becomes. A 100% red pixel is set to 0% transparent, so no video shows through; a 0% red pixel is set to100% transparent, so the full video signal shows through. The Invert checkbox reverses these mappings. With this type of compositing, remember that white is created from 100% in all three channels and black is created from 0% in all three channels. The example below shows you the results of the various types of compositing on a texture.

If you have both Composite and Tint Texture checked, the compositing operation is completed first and the result is tinted. By default, CG cuts alpha from 16 and 32-bit texture images. To make alpha areas transparent to the background, choose Composite Alpha from the Compositing list.

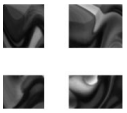

Composite None


Composite Red


Composite Green

Composite Blue

Composite Alpha

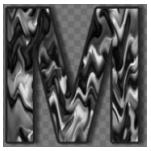

Composite Alpha Inverted

Apply Textures

1. Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and place your cursor between the brackets and type the letter "M".
2. On the Size & Attributes tab, change the font style to Bold and change the Height to 265.
3. On the View tab, change the Baseline to 250 and on the Color & Texture tab, click on the texture box.
4. Click on a blank slot and then click on Define. Find the file Abstrwav.jpg on the CG/S CD ROM.

5. Click on Open and OK.
6. Click on the Enable checkbox.
7. Click on the Size radio button. Using the color selection tools, change the face color to white.

A quick way of selecting white as your color is to use the Color Picker to select white from one of the fields on the tab.



8. Click on the Tint checkbox.

Using Classic Textures

Textures are considered part of the color definition for an object and are saved as part of color or style groups, so that items that share a style or color group also share a texture. All of the texture options are set on the Color & Texture tab.

Apply Textures

In order for CG to apply a texture to a text element or graphic object, the Enable checkbox must be checked. Enabling and disabling a texture lets you quickly add and remove textures from a commonly used object without losing the texture definitions. If your textures are not appearing, check to make sure that Enable is on.

All of the elements of text and graphic objects (face, edge, and shadow) can have textures applied to them. To apply a texture, select the object and the element to apply the texture to, click on the texture box, and select a texture from the Texture Map dialog. An image thumbnail of the texture appears on the texture box.

Textures on Logos

You can apply textures to the edges and shadows of all logos.

Monochrome logos allow you to apply textures to the face. Monochrome logos are the logos saved with the Mono option elected in Logo Compose. See “Logos” on page 141 for details.

If you insert a monochrome logo as a text object, it is formatted using the face settings for the current text line. If you insert a monochrome logo as a graphic object, you can format it as a separate graphic object. The example below shows you three monochrome logo objects inserted as graphic objects. Each logo has a different texture on its face.

Color logos already contain color information in the face and can’t have textures applied to the face. However, you can still use textures on the edge and shadow of these logos.

Textures and Templates

Texture maps are saved with any layout you store in the Templates registry. When you create a new layout based on a template from the registry, you can also access the textures associated with that template.

Align Textures

The alignment options are used to tile a texture to objects and to determine the position of the top left corner of the texture image. You can anchor the texture to the frame buffer, the object, or a specific point on the frame buffer based on the object position. The texture anchor point determines how the texture image is

tiled on the screen. No matter what anchor you select, the texture image always repeats to fill the screen.

Button	Anchor	Result
	Screen	• texture is anchored at top left corner of frame buffer • see a different part of the texture when object moved over display
	Object Left	• texture is anchored on the frame buffer at the top of the display but offset to left side of object • texture view changes if object moved vertically; texture view stays the same if object moved horizontally
	Object Top	• texture is anchored to frame buffer at left side starting at top of object • texture view stays the same if object is moved vertically; texture view changes if object is moved horizontally
	Object	• texture is anchored at top left corner of object • see same texture view no matter where object is moved on display.

Align Textures

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and draw a rectangle in the upper left corner of the layout, approximately 100 scan lines by 140 pixels.

2 On the Color & Texture tab, click on the Texture box. Now click on a blank slot and then click on Define.

3 Find the file Abstrwav.jpg on the CG/S CD Roam and click the Enable checkbox.

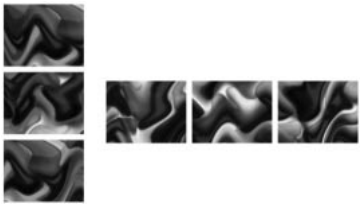
4 Select Tile as your texture mapping option and press ENTER five times to create five copies of the rectangle.

5 Set the Baseline and Left edge of each rectangle according to the following values:

Rectangle 1	Baseline 36	Left edge 50
Rectangle 2	Baseline 143	Left edge 50
Rectangle 3	Baseline 250	Left edge 50
Rectangle 4	Baseline 157	Left edge 229
Rectangle 5	Baseline 157	Left edge 379
Rectangle 6	Baseline 157	Left edge 529

6 Arrange the rectangles in the T-shape shown in the graphic below. Now, set the Alignment for the first rectangle to Object, set the Alignment for the second rectangle to Object Left, and set the Alignment for the third rectangle to Object Top.

7 Set the Alignment for the fourth, fifth, and sixth rectangles to Screen.



8 Reposition the rectangles on the screen to see how the Alignment option affects how the texture view changes. Notice how the texture design in each rectangle depending on the anchor position.

Creating Graphic Objects

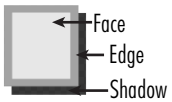
You can create a variety of basic graphic shapes to use as graphic objects in your layouts. These graphic objects are primarily intended to enhance text-based layouts, but you can use these graphic shapes to create complex layouts entirely in CG. You can also create complex background images in external software and load them as a background image, or use logos to add complex images to layouts.

Graphic Object Basics

Graphic objects appear on separate graphic layers in your layouts. See "CG Concepts" on page 44 and "Layers" on page 117 for details on layers. To switch to a graphic layer, click on a graphic object on the Formatting palette or on the Graphic button on the CG Toolbar.

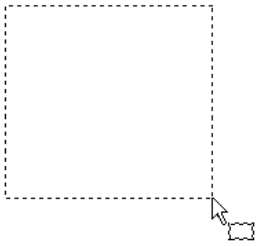
You can switch between the active text and graphic layers by holding down CTRL when you click on an object in the layout.

Each graphic object consists of three areas: face, edge, and shadow. The face defines the graphic object shape, size, and general appearance. The edge defines the style of outline. The shadow defines the type and style of the graphic object shadow.



Create Graphic Objects

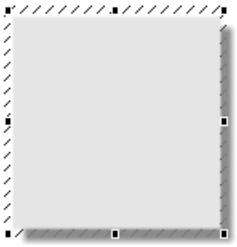
Creating graphic objects in CG is a two-step process, although you can use style and color groups in combination with the graphic tools on the Formatting palette to create graphic objects in one step. See "Use Style and Color Groups to Control Graphic Objects" on the next page for details.



The first step in creating a graphic object is to use one of the graphic tools to create an object in the CG Editor.

To create a graphic object, click on a graphic tool from the Formatting palette. See "Formatting Graphic Objects" on page 140 for details on the available tools.

In the CG Editor, click and drag to create the object. A rectangle appears in the CG Editor. When you release the mouse button, the graphic object is created within the area defined by the box, using the default values of the current style or color group.



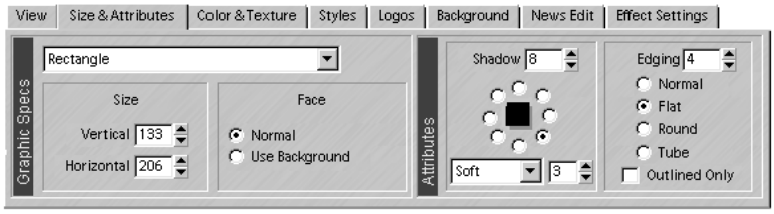
You always have to click on a tool before you can draw a graphic object; you can't draw multiple objects without selecting a tool each time.

The second step in creating a graphic object is modifying the shape, color, size, and other details of the object using the options on the Size & Attributes tab.

You can cut the face of a graphic object through to the background by selecting Use Background instead of Normal in the face section of the Size & Attributes tab.

Modify Graphic Objects

After creating a graphic object, you can modify it by changing the options on the Size & Attributes tab. The Size & Attributes tab controls the shape of the graphic object, its size and position, and the types and sizes of shadows and edges applied to the graphic object.

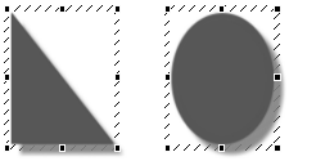


Use Style and Color Groups to Control Graphic Objects

When you draw a graphic object, CG uses the formatting defaults from the current style or color group. You can select a specific style or color group on the Formatting palette or the Styles tab before selecting a tool if you want to use the defaults from a particular style or color group as your initial setting.

When you select a style or color group and then a tool, the object that you draw uses the attributes of the style or color group, but its shape is determined by the tool that you select from the Formatting palette.

However, if you select a graphic object that has already been drawn and then click on a style group, the shape of the graphic object changes to match the default shape of the style group. The shape stays within the boundaries of the box surrounding the graphic object when it is changed. The example to the right shows you that the size of the bounding box stays the same even though the shape changes.



Create Graphic Objects

A quick tip to remember from this procedure is that selecting a graphic object and pressing ENTER on the keypad, not the number pad, creates a duplicate of the selected graphic object.

1. Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and switch to the graphic layer.
2. Select Style 16 from the Formatting palette. A rectangle appears in the lower half of the layout. Press CTRL+X to delete the only object on the layout. Click on OK.
3. Switch to the Size & Attributes tab and change the Vertical value to 450 and the Horizontal value to 35.
4. Select Style 16 from the Formatting palette and switch to the View tab.
5. Change the Baseline to 15 and the Left Edge to 15. Click on the rectangle in the layout.
6. Press ENTER on the keyboard to create a duplicate of the selected graphic object.
7. Switch to the Size & Attribute tab.
8. Change the Vertical value to 350. Switch to the View tab.
9. Change the Baseline to 115 and the Left Edge to 300.

Formatting Graphic Objects

The Formatting palette options change when you switch to a graphic layer. Several options on other CG tabs also change to show the graphic formatting options. The following table identifies all of the available Graphic Formatting Palette Tools:

Tool	Name	Explanation	Example
	Move	• moves single or multiple graphic object(s) within the CG Editor	
	Logo	• inserts a blank logo object • click on a logo from the logo tab to select a specific logo for the object	
	Rectangle	• inserts a rectangle	
	Horizontal Panel	• inserts a horizontal panel • horizontal panels have edges only on the top and bottom	
	Vertical Panel	• inserts a vertical panel • vertical panels have edges only on the sides	
	Clipped Corner Rectangle	• inserts a clipped corner rectangle • corners of this type of rectangle are angled at 45°	
	Rounded Rectangle	• inserts a rounded rectangle • top & bottom edges are flat; edges on side are rounded	
	Round Corner Rectangle	• inserts a rectangle with rounded corners • adjusting the edge number changes the edge curvature of the rounded corners	
	Oval	• inserts an oval	
	Arc	• inserts an arc • arcs have edges only on the arc side and do not have shadows	
	Polygon	• inserts a 4-sided polygon	
	Spline Curve	• inserts a spline curve • must add extra control points to create more edges and change the shape	
	Wedge	• inserts a wedge	

Change Graphic Object Shapes

You can select a new shape for a graphic object from the Size & Attributes tab's Graphic type drop-down list or from the Attributes→Graphic menu. Styles also have graphic shapes associated with them, so you can select a new shape by selecting a new style group for the object.

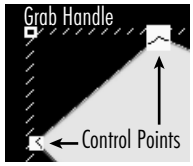
Logos

Logos are special graphic shapes that let you replace the face color of an object with a bitmap image. You can scale and position logos anywhere in the layout. Any alpha information in the logo is maintained.

CG keeps track of your logos on the Logo tab. You can add a logo to your layout by using the Logo tool to draw an object and then clicking on an image from the Logo Map, or selecting an object to convert to a logo, and then clicking on an image on the Logo Map.

You can apply edging and shadows to logos in the same way you apply them to text and graphics. See "Adding Logos to Layouts" on page 150 for details.

Splines and Polygons

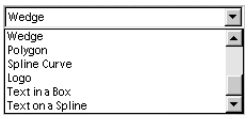


Splines and polygons are irregularly shaped objects. The basic polygon shape has four control points in addition to grab handles on the corners of the bounding rectangle. Click on any control point to move it and change the polygon shape. To add another control point, click on an existing control point and press SPACEBAR. The new control point appears on top of the old one, and can be dragged to a new position. To delete a control point, click on it and press BACKSPACE. A spline or polygon can contain up to 64 control points.

Splines also use control points, but the lines between pairs of control points are tangents to the curve, rather than boundaries of the figure. The curve always touches the midpoint of the line between two control points.

Change Graphic Object Shapes

1. Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and switch to the graphic layer.
2. Select Style 16 from the Formatting palette. A rectangle appears in the lower half of the layout.
3. Switch to the Size & Attributes tab and select Wedge from the Graphic Type drop-down list.



4. Click on the wedge in the CG Editor and press the keypad ENTER key (not the number pad key) to create a duplicate of the selected graphic object.
5. Click on the new wedge, drag it to a new position near the top of the screen and select Polygon from the Graphic Type drop-down list.
6. Click on one of the white object control points and press SPACEBAR to create another object control point.
7. Click on a control point and drag it away from its current position. One control point stays in the original position, and the control point that you are dragging changes the shape of the object.

8. Select Spline Curve from the Graphic Type drop-down list.

Understanding Graphic Shadows and Edges

Shadows can make graphic objects appear three dimensional, and edges define objects against shadows and backgrounds. CG provides a number of shadow and edging options that can be combined to create complex and interesting objects. All shadow and edge options are located on the Size & Attributes tab.

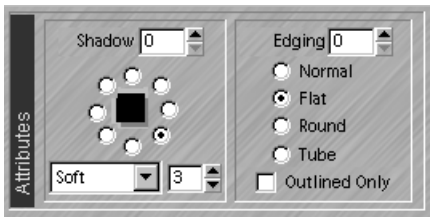
Shadows

Shadows add depth to flat 2D graphic objects and provide you with an additional tool for adding visual interest to your layouts. Shadows require three values: shadow type, shadow size, and shadow angle. Soft shadows require and additional value: softness.

All of the shadow values can be set on the Size & Attributes tab.

The shadow options are the same for text and graphic objects. See "Understanding Classic Shadow" on page 88 for details on shadow type, size, direction, and softness.

Edging



Unlike text edges, the edge options for graphic objects have several variables, depending on the type of object and the edge selections. All objects can have Normal edges. Some shapes can have beveled edges. The flat, round, and tube options set the type of bevel. You can set the edging size on the Size & Attributes tab or use the quick selection options on the Attributes→Edging menu.

A normal edge is the same as a text outline edge, surrounding the edges of a graphic object with extra pixels of color. Flat, round, and tube edges are all types of beveled edges, which are shaded so that they appear three dimensional. Only rectangular objects with 90° angles can be beveled. Objects that can be beveled include rectangles, horizontal panels, and vertical panels. Logos inserted as graphic objects can have a rectangular beveled edge surrounding them.

Normal Flat Round Tube

Depending on the graphic object type and edge type, the edge size has several meanings.

Shape	Edging Value
Rectangle	• sets the size of the edge or bevel on all four edges
Horizontal Panel	• sets the size of the edge or bevel for top and bottom edges

Shape	Edging Value
Vertical Panel	• sets the size of the edge or bevel for left and right edges
Logo	• sets the size of the edge or bevel on all four edges
Wedge	• sets the size of the edge or outline on the hypotenuse
Polygon	• sets the size of the edge around the polygon • the Outlined Only option is not available
Spline Curve	• sets the size of the edge around the spline • the Outlined Only option is not available
Clipped Corner Rectangle	• sets the size of the edge or outline on all four edges • determines how much of the corner is clipped off
Arc	• sets the size of the edge or outline around the arc side
Oval	• sets the size of the edge or outline around the oval
Round Rectangle	• sets the size of the edge or outline on all four edges
Round Corner Rectangle	• sets the size of the edge or outline on all four edges • determines the degree of the corner curve

Modify Graphic Object Shadows and Edges

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and switch to the graphic layer.

2 Switch to the Styles tab and click on Style 17.

3 Switch to the Size & Attributes tab and change the shadow size to 18.

4 Select Offset from the shadow style drop-down list and change the shadow direction so that the graphic object looks like this:

5 Now, change the shadow size to 0, the edge type to Tube, and change the edge size to 20.

6 Switch to the Color & Texture tab and click on the Edge color chip.

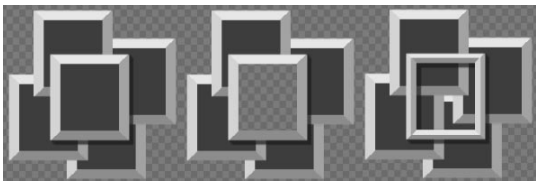
7 Now, set the H value to 90, the L value to 62, and the S value to 0.

8 Click on the FACE color chip. Set the H value to 90, the L value to 0, and the S value to 0. When the edge color is at a light or dark color extreme, the bevel is extremely faint, and the edge looks like a Normal edge, instead of a beveled edge.

Manipulating Graphic Objects

Once you have created a graphic object, you can use advanced CG options to change its size, shape, and position. You can use the Use Background radio button and the Outlined Only checkbox options on the Size & Attributes tab to create complex combinations of graphic objects and video.

Use Background Option



A Background is a graphic object selection. The Use Background radio button cuts through any underlying graphic objects to the layout background. If you have a video background, the video is visible in the face area of the graphic object. If you have a color or image background, the color or image is visible in the face area of the graphic object.

You can access the Normal and Use Background options on the Attributes→Render menu, as well as from the Size & Attributes tab.

Outlined Only Option

The Outlined Only checkbox option, on the Size & Attributes tab, is a type of edging. Outlined Only makes the face transparent to any objects underneath. Text layers still appear on top of graphic objects on the same layer number.

Select, Cut, Copy, and Paste Graphic Objects

A number of methods, such as the right-click menu and shortcut keys, are available for selecting and manipulating graphic objects. You can only perform cut, copy, and paste actions on a single object at a time. Common shortcut keys are listed below:

- to select an object, click anywhere on the object
- to cut or delete selected objects, press CTRL + X or press DELETE
- to copy selected objects to the clipboard, press CTRL + C
- to paste objects from the clipboard, press CTRL + V
- to select multiple objects to be moved, hold down CTRL and click on each object

Create Copies of Graphic Objects

To create a copy of a graphic object, select the graphic object and press ENTER on the keyboard, not the number pad. CG duplicates the current object, offset slightly down and to the right. You can then drag the new object to a new position with the mouse. See "Changing and Moving Graphic Objects" on page 146 for details on positioning graphic objects.

You can also create another graphic object by clicking on the Insert or Append buttons on the CG toolbar.

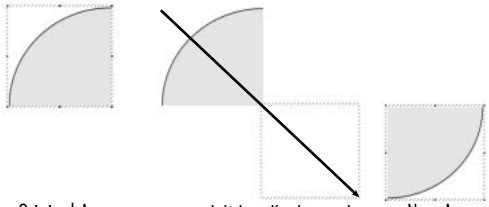
Select and Moving Graphic Objects Between Layers

When you have multiple graphic objects on the screen, use the Next and Previous arrow buttons on the CG toolbar to move between objects. CG cycles through the objects from the top to the bottom of the layout.

Two commands on the Element menu position objects in a stack: Bring to Front and Send to Back. Bring to Front moves the selected object to the top of the stack; Send to Back moves the selected object to the bottom of the stack. See "Transparency" on page 148 for details on layering objects using the stack.

Change Arc and Wedge Directions

When you create arcs and wedges, they may not appear facing the desired direction. To change the side of the arc or wedge that is curved or cut off, click on one corner of the object bounding box and drag it across the object to a new position. The opposite corner is anchored as a pivot point. The graphic to the right shows you what happens when you change the direction of an arc.



By dragging the corner of an arc or wedge over itself, you are creating a mirror image of the object, flipped horizontally or vertically, depending on which way you drag the corner.

Draw Lines

You can use the Wedge tool to create lines at any angle.

To create a line, use the Wedge tool to draw a wedge. On the Size & Attributes tab, select the Outlined Only checkbox. You can then adjust the edge value to change the thickness of the line.

Use Advanced Graphic Options

1. Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and switch to the graphic layer.
2. Select Style 9 from the Formatting palette. A rectangle appears in the lower half of the layout.
3. Switch to the Size & Attributes tab and change the Vertical and Horizontal values to 100. Now, change the shadow value to 0 and the edge value to 10.
4. Select Flat as the edge type and switch to the View tab. Now, change the Baseline to 253 and the Left Edge to 263.
5. Press ENTER (not the number pad key) to create a copy of the rectangle. When you make a copy, CG automatically selects the copy, so you don't have to click on it before you make changes to it.
6. Create three more copies and set the Baseline and Edge values to the following:
7. #1 150, 238
   #2 183, 308
   #3 199, 252
8. Switch to the Size & Attributes tab, select the Use Background radio button as your Face type, and check the Outlined Only checkbox.

Changing and Moving Graphic Objects

Size Graphic Objects

Every graphic object is surrounded by an outline rectangle with grab handles at each corner and midpoint. You can use these grab handles to change the size of the object. Click and drag one of the corner grab handles to resize both the vertical and horizontal dimensions of the rectangle. Click and drag one of the midpoint grab handles to resize only the vertical or horizontal dimension of the rectangle.

When you release the mouse button, CG redraws the object to the new box size. The corner or midpoint opposite to the one you grabbed remains anchored. If you click and drag on any other part of the line, you move the graphic instead of the resizing it.

Two modifier keys affect the aspect ratio. Press SHIFT while you resize the object to force it to a 1:1 (square) aspect ratio. Press CTRL to force the aspect ratio to 4:3. Press SHIFT+CTRL to maintain the current aspect ratio. If you want precise sizing, use the Vertical and Horizontal Dimension fields on the Size & Attributes tab to set the size. Object height is measured in scan lines; width is measured in pixels.

Position Graphic Objects

To move a graphic object within the layout, click inside the graphic object and drag it to a new spot in the layout. You can move graphic objects anywhere on the screen. The status bar shows you the coordinates of the bottom left corner of the object and the size of the object. For precise positioning, switch to the View tab and enter the Baseline and Left Edge coordinates. The baseline is measured in scan lines from the top of the frame buffer. The left edge is measured in pixels from the left side of the frame buffer.

You can use these techniques to position graphic objects in relation to text and markers displayed on the screen. Using markers, you can place graphic objects in relation to tab stops, text baselines, and horizontal and vertical screen markers. See “Working with Markers” on page 120 for details.

Nudge Graphic Objects

Graphic objects can be nudged one pixel at a time in any direction. To move an object by one pixel, select the object, hold down the ALT key, and press an arrow key to move the object. Each time you press an arrow key, the object moves one pixel in the indicated direction.

Hold down ALT+CTRL and press an arrow key to move selected objects 10 pixels in the indicated direction. Hold down ALT+SHIFT and press the up or down arrow key to move selected objects up or down the height of the selected object.

Use the Grid

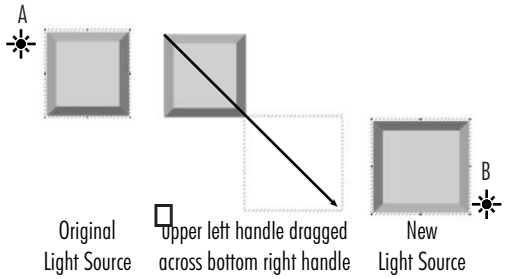
CG has a 4x4 pixel grid (16 scan lines by 16 scan lines) that you can use to position graphic objects. You can display or hide the grid by clicking on the Screen Grid checkbox on the View tab.

You can position objects using the grid in two ways. To force all objects to align to the grid (“snap to grid”), select Element→Constrain→Align All. To force the one or more selected object(s) to align to the grid, select the objects you wish to align, then select Element→ Constrain→Align to Grid. The most accurate positioning can be done by adjusting the baseline and left edge coordinates on the View Tab.

Change the Bevel Direction

CG creates bevels using an imaginary light source positioned at the top left corner of the object. To change the position of the light source, click on one corner of the object bounding box and drag it across the object to a new position. The opposite corner is anchored as a pivot point. The object below shows you what happens when you change the light source. If you draw the rectangle with light source "A" in the object, and drag the top left corner down and to the right so that it becomes the bottom right corner of the rectangle, you end up creating a rectangle with light source "B". You can move the light source to either of the two remaining corners by dragging a corner of the rectangle across itself in the appropriate direction.

The face color of an object with a beveled edge is darker than the selected face color, because of the use of a light source. If you are trying to match up the face color of a beveled object, you may have to experiment with the color values once you have applied the bevel to get an accurate match.



Drag Graphic Objects to Other Layers

To move graphic objects or groups of objects to another layer using the mouse, hold down CTRL+SHIFT and drag the mouse pointer up or down. The mouse pointer changes to a double-headed arrow, with the number of the current text layer on the bottom right side of the cursor. Release the mouse button when the number changes to the layer you want to move the text line to.

Use Bevels

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and switch to the graphic layer.

2 Switch to the Size & Attributes tab, select Rectangle from the Graphic Type drop-down list, and select Flat as your edge type.

3 Press ENTER to create a copy of the rectangle. Drag it above the original rectangle.

4 Click on the handle (the small black square) in the middle of the bottom edge of the bounding box and drag the handle up until the bounding box forms a rectangle above the current rectangle. You should have two rectangles on your screen that look like this:

The light source for the top rectangle is inverted.

5 Experiment with the Round and Tube edge types, and the other directions that you can drag the handles in. Remember that the light source only changes if you drag a handle across and past the opposite edge of the bounding box.

Transparency, Gradients, and Layering

Transparency and gradients behave the same for text and graphic objects. Graphic objects have an additional feature, the Stack, that determines how graphic objects are ordered on a layer. Each layer has its own stack.

Transparency and Gradients

The Color & Texture tab lets you create transparent and semi-transparent graphic objects, as well as objects with gradients. All of the transparency and gradient options available for text work the same way for graphic objects. See "Working with Classic Color Gradients" on page 96 and "Using Transparency" on page 98 for details.

Gradients

A gradient is a smooth transition from one color to another color. You can use any of the color selection methods to select the top and bottom colors for a gradient.

When you work with gradients, remember that the color gradient values also apply to transparency. You can combine color and transparency gradients and angles as long as you remember that gradient position and angle values are applied to both color and transparency gradients.

Change Gradient Values

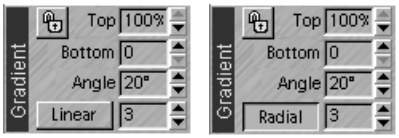
You can change the amount of the gradient, as well as the angle of the gradient. See "Working with Classic Color Gradients" on page 96 for details.

Change Gradient Angles

The Angle value rotates the color gradient by up to 90 degrees, negative or positive. Gradient angles are defined in one degree increments. If you set the Angle value to 90 degrees, your gradient becomes horizontal, moving from left to right instead of from top to bottom.

Radial or Linear Fill

You can select Radial or Linear fill to apply a different type of gradient, or more than one gradient, to an object. Click on the Linear/Radial Fill cycle button to cycle between the gradient types.



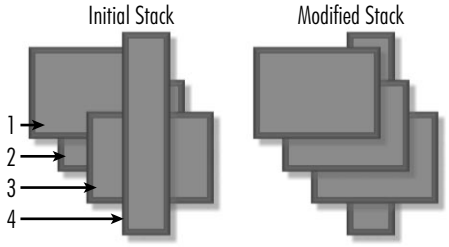
If you select Radial, the top color appears in the center of the object, and the bottom color appears at the edge of the object with the gradient occurring in a circular pattern. If you select Linear, the top color appears at the top of the object and the bottom color appears at the bottom of the object. Changing the number beside the Linear/Radial Fill cycle button changes the number of times the gradient is repeated in an object.

Transparency

Each text and graphic element can have its own transparency value. When working with transparency, it may help you to think of each element as a separate layer. The shadow is on the bottom, the edge is in the middle, and the face is on top. When the face is opaque, the edge is visible only around the outside of the face. However, when the face is transparent, you can see that the edge is really a solid layer underneath the face.

Layer Objects on a Graphic Layer

When you create graphic objects in a layout, they are layered from the back to the front. The first graphic object you create is the object at the back, or on the bottom. The last graphic object you create is the object at the front (or on top). CG keeps track of the graphic object order using a stack, which is just a list of the graphic objects in the order you created them.



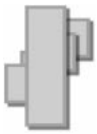
You can change the order of the graphic objects by using the Send to Back and Bring to Front buttons on the CG toolbar. Since you can only move objects to the top or bottom of the stack, reordering your objects requires a small amount of planning beforehand. Figure out what order you want your objects in, and then send them all to the back, starting with the object you want on top and finishing with the object you want on the bottom. The example above shows a simple layout that has been reordered. The object labeled 1 was sent to the back first, and the object labelled 4 was sent to the back last. You can see that the object sent to the back first is now on top, and the object sent to the back last is now on the bottom.

When you reorder objects, transparency can make a difference. If you change the order of transparent, semi-transparent, and opaque objects, you may inadvertently cover or reveal areas of the layout. Make sure that you consider your transparent and semi-transparent objects when you are reordering graphic objects in a stack.

Arrange Graphic Objects in a Stack

1. Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and switch to the graphic layer.
2. Switch to the Size & Attributes tab, select Rectangle from the Graphic Type drop-down list and change the Vertical and Horizontal values to 100.
3. Press ENTER three times to create three copies of the rectangle and move the rectangles on your layout to create the graphic on the right:

4. Click on the top right rectangle and press ENTER to create a copy of the rectangle.
5. Change the Vertical value to 300 and position the rectangle to create this object:



6. Click on the long rectangle on top and select Element→Send to Back, or click on the Send to Back button on the CG toolbar.
7. Now, click on the bottom small rectangle and send it to the back, then click on the rectangle just above the bottom rectangle and send it to the back.
8. Click on the next rectangle and send it to the back, and click on the top small rectangle and send it to the back. Finally, click on the long rectangle and send it to the back.

   Your layout should look like the graphic to the right.

Adding Logos to Layouts

Logos are images containing alpha information that can be used as either text or graphic objects. Logos are used to import images into CG that are not backgrounds, such as corporate and product logos.

Understand Logos

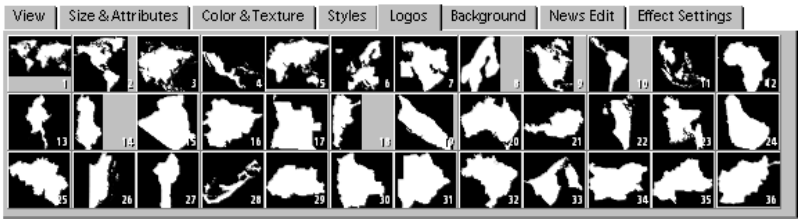
Logos are images created in Logo Compose or a third party graphics package, not in CG itself. These images are saved in a compatible format and imported into the CG Logo Map. Once an image is imported into the Logo Map, you can use it in your layout. The Logo Map is unique to each layout.

Logos let you use complex images with detailed alpha information in your layouts. If the CG graphic tools are not sufficient to allow you to create a complex graphic layout, you can always use Logo Compose to create a graphic and import it into CG.

Logos are most commonly used for station identification images, corporate logos, or product logos.

Add Logos to the Logo Map

To use logos in a layout, you have to add them to the Logo Map first. The Logo Map is found on the Logos tab and keeps track of all the logos in a layout. You can define up to 36 logos for each layout.



Since logo definitions are saved with the layout in the Registry, layouts based on the same template have the same logos available to them. See "Understanding Templates" on page 154 for details on using logos with templates.

To add a new logo to the Logo Map, right-click on a blank slot on the Logo Map. Use the Open dialog options to locate and select the graphic file you want to use as a logo. You can use the SHIFT and CTRL keys to select more than one image file. When you click on Open, the image or images you selected are added to the Logo Map, starting at the slot you selected. Any logos previously in the slots are overwritten by your selections.

If you add a logo to the Logo Map, and then move the logo file, CG first looks on the path previously used, and then looks in the Samples folder directly below the CG/S program files. If the graphic file can't be found in either of these places, CG leaves the slot on the Logo Map blank, but saves the name of the graphic file assigned to the slot. You can view the name by placing the mouse pointer over the slot on the Logo Map and waiting a second or two until the name and path are displayed in a pop-up box.

Remove Logos from the Logo Map

To remove a logo from the Logo Map, you must undefine it. Click and drag the logo you wish to undefine off the Logos Tab and confirm your action. Removing unused logos from a layout template reduces load time.

The Logo tab shows 24-bit thumbnails of the logos, so alpha areas are not visible. Alpha areas only become visible when you insert the logo in a layout.

Add Logos to the Layout

You can add logos to the layout as either text or graphic objects. Text and graphic logos differ in two basic ways:

- the type of shadow and edging you can apply to the object
- the way you can position the object in a layout

See "Logo Shadow and Edging" on page 152 for details. If you are using glyph processing or a double-byte system, logos cannot be inserted as text.

The methods and tools for sizing and positioning a logo are determined by its object type. If you insert a logo as a text object, it is added to the current line of text and scaled to fit the current height and width settings. The logo can then be modified and positioned as part of the text line. Logos that are used as text objects are always part of a line of text and behave like standard text characters.

To insert a logo as a text object, click on the line where you want to add the logo, and then click on the logo on the Logo tab. You can only add logos as text objects using the Classic type style.

If you insert a logo as a graphic object, it is added to the layout as a separate graphic object and can be positioned independently of any other object. To insert a logo as a graphic object, click on the Logo tool, draw a rectangle, and then click on the logo on the Logo tab.

Double-Byte and Glyph-Processed Logos

Logos in double-byte and glyph-processed languages should always be inserted as graphic objects, although you can insert a logo as a text object.

Add a Logo to a Layout

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and click on the layout.

2 Switch to the View tab and change the Baseline to 400.

3 Switch to the Logo Tab and select the world map logo from the bottom left corner of the Logo Map.

4 Switch to the Size & Attributes tab. Now, change the height to 300, the Edge value to 4, the edge type to Glow, and change the Shadow value to 0.

5 Switch to the Color & Texture tab and click on the FACE color chip.

6 Click on the Solid/Blend cycle box until the word TOP appears and change the top face color to pale blue.

7 Click on the Solid/Blend Box until the word BOTTOM appears and change the bottom face color to medium blue.

8 Click on the Edge color chip and change the edge color to dark blue.

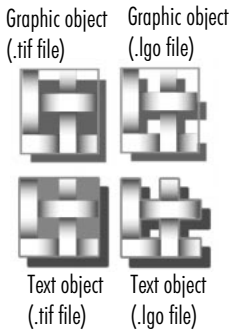
Modifying Logos

Depending on what format your graphic file is in, and how you add it to your layout, you can enhance your logo by using the shadows and edges available in CG. If your logo is a monochrome logo, you can also manipulate its face color.

Logo Image Files

CG can use most standard types of image files as logos. The Files of Type drop-down list on the Open dialog gives you a comprehensive list of the graphic file types you can use.

You can also use Logo Compose to convert any of these file types to .lgo files. The .lgo format is an Inscriber format designed specifically for logos. Files in .lgo format give you more control over the edges and shadows than files in other graphic formats.



The graphic to the right shows you differences between the Inscriber logo format and a standard graphic format, .tif, and how logos are handled differently depending on whether they are used as graphic objects or as text objects.

Logo Shadow and Edging

When you insert a logo as a graphic object, it is still a 32-bit image with its alpha levels maintained. As you can see in the graphic above, the graphic file type and the way the logo is added to the layout are the two factors that determine how the shadows and edges are applied. The following table expands on the information in the above graphic.

File Type	Object Type	Shadow Properties	Edge Properties
Inscriber format	text object	shadow follows object edges	edge follows object edges
non-Inscriber format	text object	shadow follows bounding box edges	edge follows bounding box edges
Inscriber format	graphic object	shadow follows object edges	edge follows bounding box edges
non-Inscriber format	graphic object	shadow follows bounding box edges	edge follows bounding box edges

If you apply a shadow to a graphic object, it follows the outline of the object, even if it is not rectangular. If you apply an edge, it follows the edge of the bounding box, not the outline of the object. If you insert a logo as a text object and apply a shadow, it follows the outline of the object, even if it is not rectangular. If you apply an edge, it also follows the outline of the object.

Do not apply both an edge and a significant shadow to a logo inserted as a graphic object because the shadow follows the object edge, not the bounding box edge.

Also, do not overlap one logo's shadow over another logo with an edge, as unpredictable results may occur.

If you are using a double-byte or glyph processed language, do not insert your logos as text characters. Instead, insert them as graphic objects.

Monochrome and Color Logos

Monochrome and color logos differ in one important area: you can change the face color and texture of a monochrome logo, but you cannot change the face color and texture of a color logo. Monochrome logos are 1-bit image files, and color logos are 16 or 32-bit files.

Changing the color of a monochrome logo is the same as changing the color of any other text or graphic object. On the Color & Texture tab, click on the appropriate color chip to determine which object element you are changing. Then use the color selection tools to select a color for the object element. You can also apply a texture or a tinted texture to monochrome logo shadow and edges.

Even though you can't change the face color of color logos, you can still change the edge and shadow colors. CG ignores whatever color is on the Face, but uses the colors on the edge and shadow color chips.

You can also use style and color groups to format your logos. Monochrome logos use the style or color group information to format the face, edge, and shadow of the logo. Color logos use the style or color group information to format only the edge and shadow of the logo.

mono logo with foreground set to black

color logo with foreground set to black

The example to the right shows you the difference between a monochrome and a color logo. The monochrome logo, on the left, uses the color group face color, while the color logo, on the right, keeps its face image.

You can create a color logo from a monochrome logo, and vice versa, using Logo Compose. See the Logo Compose section beginning on page 226 for details.

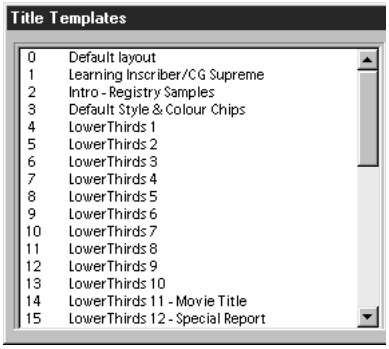
Apply Edges and Shadows to Logos

1. Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and switch to the text layer. Now, click on Style 10 on the Formatting palette.
2. Switch to the Size & Attributes tab and change the Height value to 95.
3. Switch to the Logo tab and click on Logo 15. Now, click on the text line and press SPACEBAR.
4. Click on Logo 16 and switch to the graphic layer.
5. Switch to the Size & Attributes tab and select Rectangle from the Graphic Type drop-down list.
6. Now, change the Vertical and Horizontal values to 100 and move the rectangle so that it is underneath the first logo in the text line.
7. Press ENTER to create a copy of the rectangle and move the second rectangle so that it is underneath the second logo in the text line.
8. Switch to the Logo tab and click on the second rectangle.
9. Click on Logo 15, click on the second rectangle and click on Logo 16. Notice the differences in shadows and edging between the logos inserted as graphic objects and logos inserted as text.

Understanding Templates

Every layout in CG is based on a template. Templates let you define standard layouts for projects. They contain anything you put in a layout, from lower third definitions to complex full screen layouts using logos and other graphic objects.

Templates



Every layout in CG is based on a template. When you click on an empty event thumbnail in the Play List, CG uses the current template to create a new layout.

Templates contain all of the information and objects in a layout, including logos, backgrounds, News Edit lists, and style and color groups. Templates are a good way to provide continuity across a project. If you define all the logos, colors, graphic styles, and text styles you need for a project in advance and save them as a template, you can ensure that all the layouts created with the template use exactly the same colors and formats.

To select a template, click on a template name from the Templates registry drop-down list on the CG toolbar. CG loads the template, which you can then modify. You can also select File→Registry→CG Layouts, select the name of the template from the list, and click on Load. An image thumbnail appears for each entry when you move through the listing of layout templates.

If you have created a layout and then select a template from the registry, CG erases your layout and displays the layout of the template. Always remember to click on an empty event thumbnail in the Play List before you select a template from the registry.

Adding Templates to the Registry

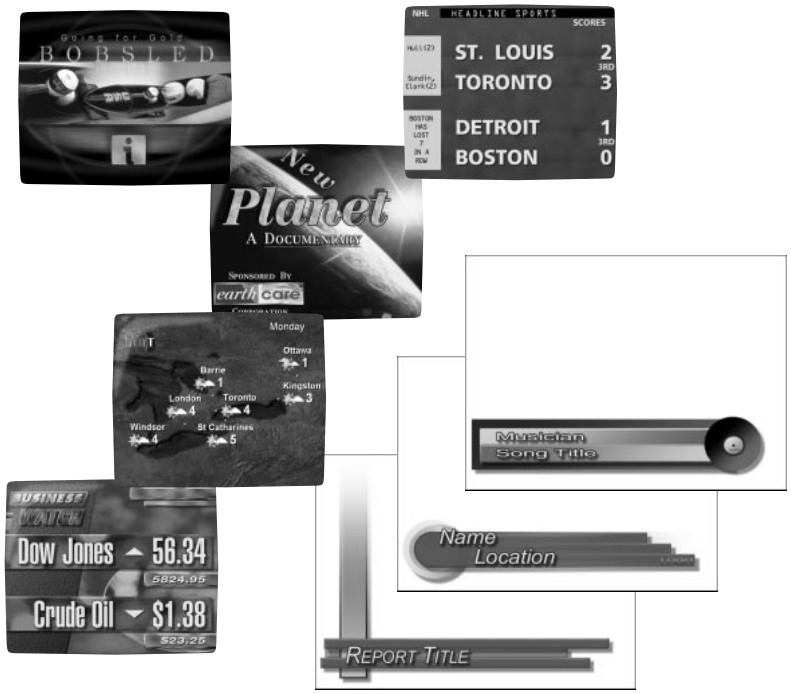
To add your own templates to the Templates registry, create a layout and make sure that all of the text style and color groups, graphic style and color groups, and logos are set up correctly. This layout becomes a template when you add it to the Templates registry.

Select File→Registry→CG Layouts and then click on Add. The number in the top field represents the position of the template in the registry list. If you don't change the number, your new template overwrites any template already in that position. CG/S comes with a number of standard templates, which generally occupy positions above 1000.

Always name your templates distinctively, so that you can tell what they are when you are looking at the names in the Templates registry.

Template Examples

Below are some examples of the kinds of templates you can create. Five of the templates are full screen layouts, and three of them are lower third layouts. In a lower third layout, the video feed is visible behind the layout elements, which appear in the bottom third of the screen.



Create a Template

1. Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and switch to the graphic layer.
2. Switch to the Size & Attributes tab and select Rectangle from the Graphic Type drop-down list.
3. Switch to the Styles tab and select Style 20 and change the Vertical value to 45 and the Horizontal value to 450.
4. Switch to the View tab, change the Baseline to 385 and the Left Edge to 75. Now, click on the rectangle and press ENTER to create a copy of it.
5. Change the Baseline to 365 and the Left Edge to 100.
6. Switch to the text layer and type the words "Report Title".
7. Select Style 29 from the Styles tab and switch to the View tab. Change the Baseline to 410 and the Left Edge to 75.
8. Select File→Registry→CG Layouts and click on Add.
9. Change the template name to Title Template and click on OK and Close.
10. Click on the next blank slot in the Play List. The new layout is based on the template you just created.

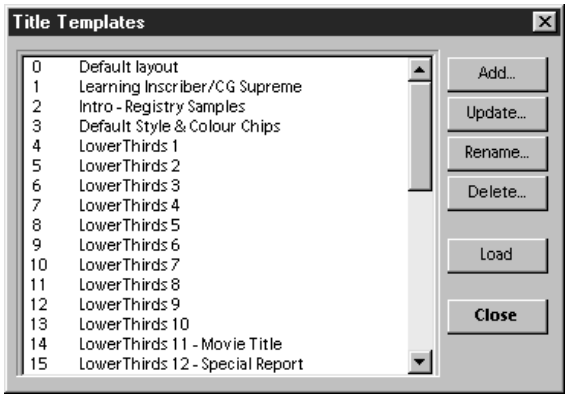
Using Templates

You can use templates to provide a standard starting point for all layouts in a Play List. You can also update the layouts in a Play List using a new template, or use existing layouts to create new templates.

Templates Registry

The Templates registry is a collection of templates created by Inscriber that provides you with a starting point for creating your own layouts in CG. You can load a template from the registry using the drop-down list on the CG toolbar. The Templates registry contains all of the available templates. You can also create your own templates and add them to the Templates registry.

The Templates registry collects and organizes all of your templates. You can work with the Templates registry dialog by selecting File→Registry→CG Layouts. Some of the functionality of the Templates registry, such as loading a template, can also be accessed from the CG toolbar.



The Templates registry dialog lets you:

- add new templates to the registry
- update templates already in the registry
- rename templates already in the registry
- delete templates from the registry
- load a template into the CG Editor

The Default Layout Template

The default layout template is always Template 0. You can update the default template, overwriting previous layout information. See "Modifying Templates" below for details on updating the default template.

Backing up the Templates Registry

If you want to update the default template, you should make a backup copy of Inscribe.reg, which is located in the CG/S folder. Backing up Inscribe.reg backs up the templates and the News Edit registry.

Modifying Templates

You can make changes to any template and save the changes in the Templates registry so that subsequent layouts use the changed version. Make your changes to the layout, select File→Registry→CG Layouts, and then click on Update.

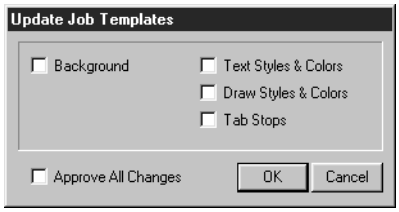
Make sure that the template you want to modify is the selected template. Otherwise, you could update the wrong template.

When you modify a template in the registry, the changes are not applied to layouts that you have already created with it. They only apply to new layouts based on the template.

Update Layouts Based on the Same Template

Sometimes you may finish an entire Play List based on a single template and then discover that a minor color change or font resizing is required. Because you based each layout on the same template, you can make the change once and then apply the same change to every layout in the Play List based on that template.

Make the change to one of the layouts and then select Edit→Update Job Templates. You can select which elements of the template need to be updated, rather than updating everything. If you select Approve All Changes, CG asks you to confirm the change before updating each layout.



When you update a Play List this way, remember that only layouts based on the same template as the current layout are changed.

Modify an Existing Template

1 Select Lower Thirds 8 from the Templates registry drop-down list on the CG toolbar and click on the first text line in front of the word "Name".

2 Switch to the Size & Attributes tab and change the Height to 56 and the Width to 88%.

3 Switch to the View tab and change the Baseline to 377 and the Left Edge to 0.

4 Click on the second text line in front of the word "Location" and press the TAB key four times to add four tabs. Now click on Style 11 on the Formatting Palette.

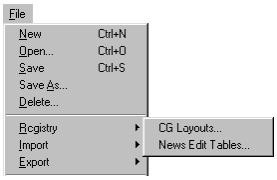
5 Switch to the Size & Attributes tab and change the Height to 31 and the Width to 84%.

6 Switch to the View tab and change the Baseline to 420 and the Left Edge to 0.

7 Switch to the graphic layer and change the Baseline to 383 and the Left Edge to 55.

8 Switch to the Size & Attributes tab and change the Vertical Size to 10 and the Horizontal Size to 600.

9 Select File→Registry→CG Layouts and click on Add.



10 Change the Template number to 75 and the Template name to Test Template. Click on OK.

11 Click on a blank thumbnail in the Play List and select template 75 Test Template from the Templates registry.

Understanding News Edit

News Edit lets you quickly update layout text with commonly used names, places, or other text. You can update text without having to type it in each time, so you don't have to worry about formatting or spelling.

News Edit Basics

News Edit can be used in an online environment to update changing information, like scores or call-in show information. It can also be used in an offline environment to speed up the creation of titles with repeating information, like lower thirds for a number of reporters or locations. News Edit is primarily suited for "near online" situations and offline uses, where text is fairly static. Inscriber RTX is more suitable for real time data updates.

If you are in online mode, any changes you make are rendered as soon as you make them. In both online and offline situations, News Edit reduces text entry by letting you predefine text strings and select them from a list rather than repeatedly typing in the same information. This way, you only have to check your text for accuracy and correct spelling once, rather than each time you type in a line.

Set Up and Use News Edit

News Edit can be a powerful tool once you understand how it functions. The first time you use News Edit, follow this process:

- create tables of commonly used text in a text editor, and spell-check them
- create a standard template in CG
- import tables into CG
- save tables in the News Edit registry
- associate imported lists with particular lines in the template
- save the template in the Templates registry

Once you have created your template and lists, and associated the lists with the template, using News Edit follows these steps:

- click on a blank thumbnail on the Play List
- select the News Edit template
- select text lines on the template and then select list items from the News Edit tab

You can create as many templates and lists as you want. Any text line can be associated with any template. See "Using Templates" on page 156 for details on setting up templates.

Design News Edit Templates

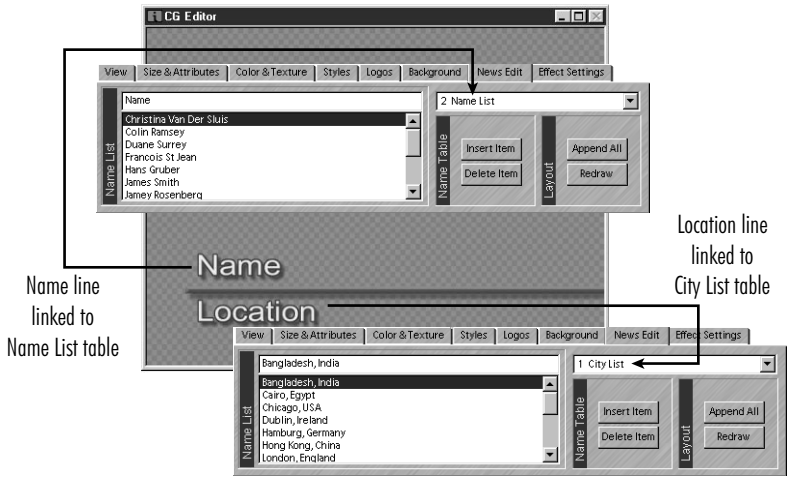
When you design templates for use with News Edit, remember that the main goal of a News Edit template is rapid updating. Static information should be separated from changing information, so that you don't accidentally change the static information.

If possible, you should place text lines that need to be changed often on text layer 1, and text that remains static on text layers 2 to 5. Text layer 1 is the default text layer, and placing changing text on text layer 1 eliminates the need to repeatedly change text layers. Text layer one also prevents you from inadvertently making changes to text that you want to remain static.

A second design aspect to remember is the maximum and minimum amounts of text that you may have on a changing text line. You should test extreme values when you design your layout so that you don't run into problems with very long or short lines. For example, a layout might have to handle names from Ng to Van De Vondervoot, or scores from 2 to 117.

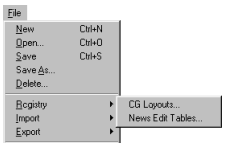
News Edit Template Example

Here is a sample News Edit template, along with the News Edit tables associated with the template.



Link a Template to News Edit Tables

1. Select Lower Thirds 3 from the Templates registry drop-down list on the CG toolbar and switch to the News Edit tab.
2. Click on the text entry box above the table list and type "Paris, France" in the text entry box. Click on Insert Item.
3. Select File→Registry→News Edit Tables and click on Add.



4. Change the name of the table to One City and click on Close.
5. Repeat Steps 3 to 9 to create a second table called Landmark containing the text "Eiffel Tower".
6. Click on the Name line on the layout and select Landmark from the News Edit table drop-down list.
7. Click on the Location line on the layout and select One City from the News Edit table drop-down list.
8. Select File→Registry→CG Layouts and click on Add. Change the template name to News Edit Test and click on OK and Close.
9. Click on the next blank slot in the Play List. The new layout is based on the template you just created.
10. Click on the Name line and then on the Location line. The table displayed on the News Edit tab changes as you switch between lines.

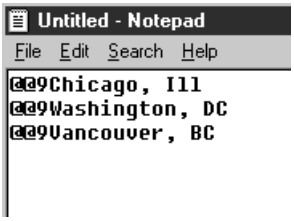
Creating News Edit Tables

News Edit tables contain lists of commonly used names, places, or other text. They can be created in CG, or in any text editor.

Table Basics

To use News Edit, you need to create and import a News Edit table into the News Edit registry. News Edit tables are text files containing lists of commonly used text lines that you can prepare in a text editor and import into CG. You can use as many different News Edit tables as you want, but each one must be prepared and imported separately.

A common use for News Edit tables would be modifying layouts for a call-in show where you need to change the city name for each caller. You can prepare a city name table in advance with likely city names. If you need a name from another city, it can be typed into the layout directly and then added to the city name table or discarded when it has been used.



News Edit tables can be created in any text editor. Each entry in the table should be on a separate line in the text editor. Entries can consist of names (Mike Smith), places (Halifax, Nova Scotia), or other text (Weather Advisory).

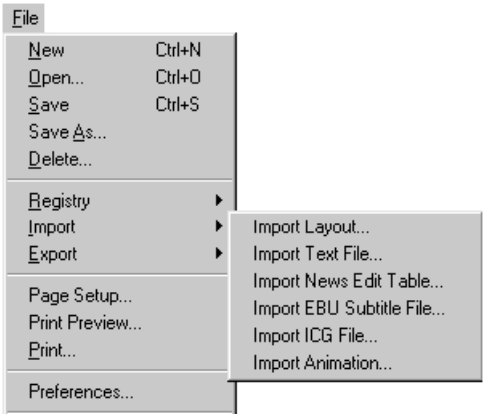
You can use any available alphanumeric character, although there are a few special formatting character combinations that you should note. See"Formatting News Edit Tables" on page 162 for details on special formatting character combinations. The formatting combinations let you insert logos and tabs, apply style and color groups, or add comments to your table.

Any changes you make to a table are automatically saved in the Registry.

Import News Edit Tables into CG

CG reads the imported News Edit table file as an ASCII file and correctly interprets national language characters. A few characters also have formatting functions.

Import the text file into CG by selecting File→Import→Import News Edit Table and opening the text file you created. CG imports the text file into the 0 Import Text table and opens the Templates registry dialog.



You can save the table in the News Edit registry by clicking on an existing News Edit Table, then clicking on Add. Or, you can return to CG by clicking on Close. If you save the table, it appears under the name you assign to it when you return to CG.

If you return to CG without saving the table, the table appears in 0 Import NewsEdit Table.

The 0 Import Text table stores any file that you import into News Edit. The next file you import overwrites any file already in the table. The 0 Import Text table is always left unsorted. Any other tables are sorted alphabetically.

Assign Tables with Layout Text Lines

You can link each text line in a layout to a specific table by selecting a line in the layout and then selecting a News Edit table. CG automatically associates the table with the text line. If you click on a different line and then select another News Edit table, CG associates that line and table. When you switch back to the first text line, the News Edit table you associated with the text line appears on the News Edit tab.

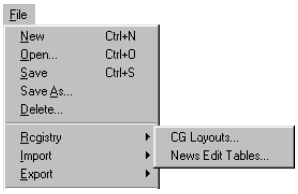
Create and Import a News Edit Table

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and switch to the News Edit tab.

2 Click on the text entry box above the table list and type "Toronto, Canada" in the text entry box. Click on Insert Item or press INSERT.

3 Repeat Step 2 for each of these place names:
Vienna, Austria
Chicago, USA
Paris, France
Tokyo, Japan
Amsterdam, Netherlands

4 Select File→Registry→News Edit Tables. Click on an existing News Edit Table and click on Add.

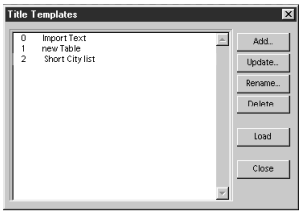


5 Change the name of the table to Short City List. Click on Load to load the table, and click on Close.

6 Select Short City List from the News Edit Tables drop-down list on the News Edit tab. The entries in the table are now arranged in alphabetical order.

7 Click on the text entry box and type "London, England" in the text entry box.

8 Click on Insert Item and select File→Registry→News Edit Tables. Now, select Short City List and click on Update.



9 Click on Yes to replace the table with the current table and click on Close. Your screen should look like the following:

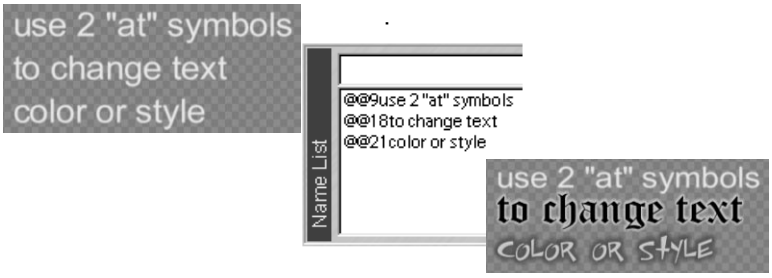
Formatting News Edit Tables

News Edit tables can be prepared in any text editor, as long as the editor does not insert special formatting codes or control characters in the file. If you don't know whether or not your editor inserts formatting codes or control characters, use Windows Notepad to check the file before you try and import it into the News Edit registry. Each entry in the table should be on a separate line in the text editor. Create the file in your text editor and save it as text.

Assign Styles and Colors

The characters *@@number* let you pre-assign global style or color groups to lines of text. Start the line with *@@number*, where *number* is the actual number of the style or color group you want to use. You must insert Style and Color format codes at the beginning of the line, before other format codes such as tabs or logos.

Be careful when you mix style and color groups. Color groups do not include any formatting information, so lines assigned to color groups also use information from the last style group that you used, which can lead to unexpected results.



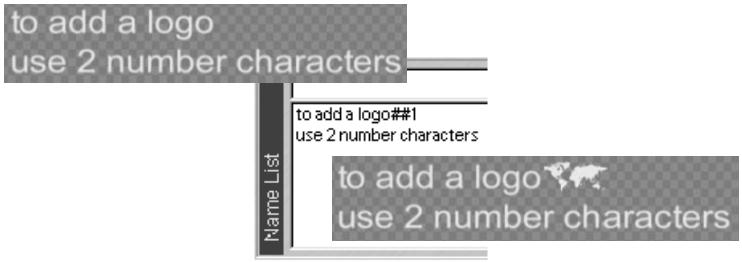
Add Mid-Line Style Changes

The characters ^^ let you apply local, midline changes to the text style or color. After beginning a line with the style or color format code "@" and number, begin your midline style or color change with a space plus "^^*number*" where number is the actual number of the style or color group you want to use.

Add Logos

The characters *##number* let you insert a logo as a text object in a line. You can place *##number* anywhere on the line, where *number* is the actual number on the logo tab of the logo you want to insert. If the position on the Logo tab is empty, CG

inserts a blank space on the text line. Logos inserted this way use the formatting of the current line. You should include a comment in the table to identify the logo.



Add Comments

The characters // let you insert comments at the end of a text line. Any text on the line following the // is ignored.

Add Tabs

Underscore characters (_) are used to insert tabs in text lines. See "Formatting Tabs in News Edit Tables" on page 164 for details on including tab formatting.

Experiment with News Edit Table Format Codes

1 Enter these lines in a text editor and save them as a text file called "experiment.txt.

2 @@20Warning!
@@12Do Not Adjust.
@@14 Effects are ^ ^ 9 temporary.
@@26Stay tuned for more information.

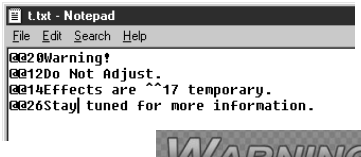
3 Select the Documentation Template from the Templates registry and switch to the View Tab.

4 Change the layer value to 3 and click on the current text line. Now, on the View tab, adjust the baseline to 60.

5 Switch to the News Edit tab. Then, select File→Import→Import News Edit Table and import the file you created in Step 1.

6 Click on the 0 Imported News Edit Table entry in the Title Templates dialog. Then, click on Load and Close.

7 Click on Append All on the News Edit Tab. Your layout should look like the graphic below.



Formatting Tabs in News Edit Tables

News Edit tables containing tab formatting can be prepared in any text editor, as long as the editor does not insert special formatting codes or control characters in the file. Tab formatting affects the appearance of text in one of three ways: cascading text, column text, and a combination of both. Create the file in your text editor and save it as text.

Add Tabs

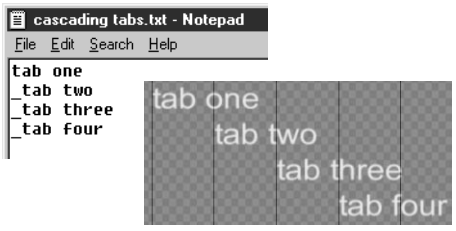
Underscore characters (_) are used to insert tabs in text lines. Text lines start at the first tab stop in your layout.

Create Cascading Text

Cascading text lines begin with the first line starting at the first tab stop. Because tab jumps are cumulative, the next line begins at the next tab stop. Subsequent lines each appear one tab stop over from the last line.

A single underscore formatting character starts text lines on the next available tab stop. To create cascading text lines, simply add one underscore formatting character to the beginning of each line tabbed line.

The first line of text should begin at the first tab stop, so do not include an underscore character. The second line of text should begin one tab over from the first line, so include an underscore character. Subsequent lines of text with one underscore character start at the next available tab stop. The result is cascaded text.



Reset Cascaded Text

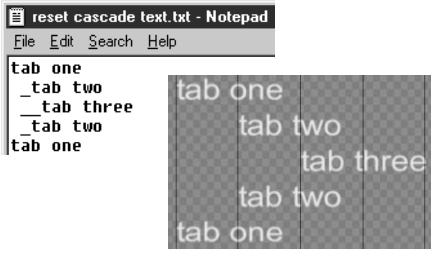
Cascaded text creates an interesting online effect, but soon your text runs off the right-hand side of the screen. To reset text to the first tab stop, enter a space before the underscore character of every affected line of text. Unlike cascading text, where you rely on a single underscore character to move each new line of text to the next tab stop, use spaces to indicate a tab reset, and use one underscore character for each tab stop jump you want to make.

For example, you can create three lines of cascaded text, followed by a fourth line that is tab-aligned to the second line, and a fifth line tab-aligned to the first line.

The first line of text contains no spaces or format characters because it starts at the first tab stop.

The second line contains a space plus one underscore character which force the text line to begin at the first tab stop plus one tab jump.

The third line contains a space plus two underscore characters which tell the force the text line to begin at the first tab stop plus two tab jumps.



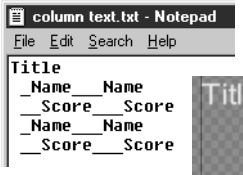
The fourth line contains the same formatting as the second, and the fifth line is the same as the first.

Create Column Text

Column text, such as sports scores, election results, and most tabular text displays requires a variation on cascaded text plus the ability to reset text as described above.

For example, You can create a table of text consisting of a title, 2 primary columns for "Names", and 2 secondary columns for "Scores".

The first line of text contains no spaces or format characters because it starts at the first tab stop.



The second and fourth line each includes two instances of tabbed text. The first column contains a space plus one underscore character which force the text line to begin at the first tab stop plus one tab jump. The second column contains no space and three underscore characters which force the text to begin three tab jumps over, thus creating your "column" effect.

The third and fifth line also include two instances of tabbed text. The first column contains a space plus two underscore characters which force the textline to begin at the first tab stop plus two tab jumps. Like the second and fourth line, the second column contains no space and three underscore characters.

Create and Format Tabular Text

1. Enter these lines in a text editor and save them as a text file called "election.txt". Note that • represents a space:

   @@20•_Election

   @@20•__Results

   @@12Samantha Tunstall•_ _ _ _^ ^14 2 341

   @@15Region 15

   @@12Simon Fraser •_ _ _ _^ ^14 1 979

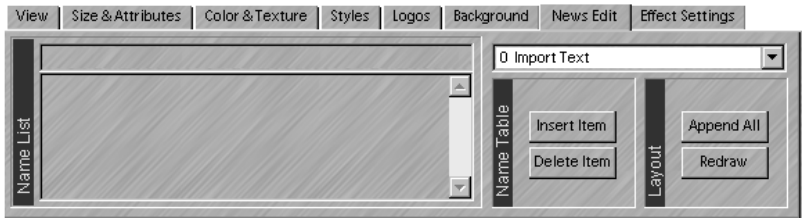
   @@15Region 15
2. Select the Documentation Template from the Templates registry and switch to the View Tab.
3. Change the layer value to 2 and click on the current text line. Now, on the View tab, adjust the baseline to 60.
4. Switch to the News Edit tab. Select File→Import→Import News Edit Table and import the file you created in Step 1.
5. Click on the 0 Imported News Edit Table entry in the Title Templates dialog. Click on Load and Close.
6. Click on Append All on the News Edit tab. Your layout should look like this:

Using the News Edit Registry

News Edit lets you create, add, modify, and delete lines in News Edit tables. Search functions let you find table entries quickly. You can also import formatted text created in a text editor.

Use the News Edit Tab

The News Edit tab lets you use News Edit tables, which you can select from the table drop-down list. The contents of the table are displayed in a scrollable table list. You can also enter text in the text entry box on the News Edit tab and add the text to the current layout or to the current News Edit table.



The four buttons on the News Edit tab let you edit the current table and add the table to the current layout. Append All adds the entire contents of the current table to the layout. Redraw is the same as the Edit→Redraw command, and redraws the current layout.

Edit and Update a News Edit Table

You can edit the contents of a table using the Insert Item and Delete Item buttons.

If you want to add a new item to a table, type the new item in the text entry box on the News Edit tab and click on Insert Item or press INSERT. The new item is added to the current table.

If you want to change an item in a table, click on the item. The text appears in the text entry box. Change the text and click on Insert Item or press INSERT. The new item is added to the current table, but the original text of the item is also left in the table. You can get rid of the original text item by selecting it and clicking on Delete Item.

Changes made using these options are permanent. They are automatically saved in the News Edit registry. The next time you load CG/S, the News Edit tables contain your changes.

Add News Edit Text Lines to a Layout

To use News Edit to update a layout, click on the line in the layout that you want to change, and then select the text from the News Edit table list to replace the current layout text line. You can either double-click on the text line in the News Edit table list, or click on the text line and press ENTER. CG replaces the current text line with the selected text from the News Edit table.

You can also type text into the text entry box and press ENTER to replace the current text line with the text you entered. This text can then be added to the News Edit table using Insert Item, or you can click on another item in the table list to erase it.

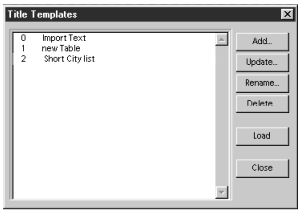
Search for Table Entries

News Edit offers smart text searching in your tables so that you can locate items as quickly as possible. To search a table, click on the text entry box and start typing. With every keystroke, News Edit checks the list for the first item that matches the letters you have entered. When you have typed in enough text to uniquely identify the item you want, press the DOWN arrow key. The selection bar jumps to that item. Press ENTER to insert the item in your layout.

Adding, Editing, and Updating a News Edit Table

This procedure assumes that you have completed the previous procedure, "Experiment with News Edit Table Format Codes" on page 163.

1 Select File→Import→Import News Edit Table and import the file you created called election.txt. CG displays the Title Template dialog.



2 Click on an existing News Edit Table, then click on Add.

3 Enter a new name and registry number for your table, and click OK. Notice how your imported file has now been added to the News Edit registry. Now, click on Load, then Close.

4 Click on the second item in the list "@@20__Results". The News Edit items are listed in alphabetical order starting with the format codes.

5 Change the word "Results" to "Coverage" and add a logo of your choice to the end of the line by using the *##number* formatting codes where *number* is the logo file number. The tab formatting changes because the logo pushes the text line toward the left.

6 When you have changed the text and added the logo, click on Insert Item or press the INSERT key. The new item is added to the current table, but the original item is still displayed on the screen.

7 Delete the original item by selecting it and pressing the DELETE key, then exit CG/S. You are not prompted to save your changes to the News Edit Table.

8 Reload CG/S. Switch to the CG module. Switch to the News Edit tab. Load your imported table. Your News Edit Table contains the text change and logo addition.

Preparing Subtitle Files

CG lets you create subtitles by importing text files using one of three file formats. You can also use the CG subtitle features to do versioning, and use the News Edit special character features to automatically format your subtitles.

Subtitle File Types

You can create three types of subtitle files to use in CG.

File Type	Explanation
Subtitle-Only	• a text file containing subtitles • a blank line separates each subtitle page
Timecoded Subtitles	• a text file containing subtitles and timecode • time in and out codes separate each subtitle page
EBU Format	• a file containing subtitles and timecodes using standard EBU N19 formatting conventions

You can use News Edit formatting commands with subtitle-only and timecoded subtitle files to automatically format and comment your text. See "Creating News Edit Tables" on page 160 for details. A Subtitling Tutorial located in your CGS41/Utilities folder contains text formatting code examples. See "Supported EBU Format Features" on page 173 for details on EBU features.

Prepare Subtitle-Only Files

You can use any text editor or word processing program to create a subtitle-only file. Save your subtitle file as DOS/ASCII or plain text. Generally these files have a .txt extension.

To create a Subtitle-Only file, enter the text in a text editor. You can put as many lines of text on each page of subtitles as you require. Use a blank line to separate the subtitle pages. CG starts a new layout whenever it encounters a blank line.

You can create a layout that contains only the template elements by inserting a blank line, a blank line with a space on it, and another blank line. You can also create a completely blank layout by inserting two blank lines, instead of one, in your text file.

You can divide each page of subtitles into individual lines, or you can type each page of subtitles as one long line of text. If you type each page onto a single line, make sure that the layout for your subtitles has Word Wrap turned on. Remember to signal each new layout page with a blank line. A sample of three subtitle layouts in a subtitle-only file with Word Wrap turned off would look like this:

```
To be or not to be, that is the question.

Whether 'tis nobler to suffer
the slings and arrows

of outrageous fortune, or to take
arms against a sea of troubles.
```

The layout template you use in CG determines the number of lines per page and the maximum number of characters per line. See "Understanding Templates" on page 154 for details.

Prepare Timecoded Subtitle Files

You can import text files that contain both subtitles and timecodes. These files are the same as subtitle-only files, except that each subtitle page is separated by its in and out timecodes.

You can divide each page of subtitles into individual lines, or you can type each page of subtitles onto a single line, with the in and out timecodes at the end of the line. The timecodes indicate the end of the page. CG starts a new layout after each out timecode.

Timecodes use the format <hours:minutes:seconds:frames>. The opening and closing angle brackets are required. The timecodes represent the actual times that the subtitles appear in the video. When you import the timecoded subtitle file, the timecodes are converted into the following components: time in, duration, wait, and time out. See "Understanding Event Duration" on page 192 for details.

A sample of three subtitle layouts in a timecoded subtitle file with Word Wrap turned off would look like this:

To be or not to be, that
is the question <00:37:27:02> <00:37:30:14>

Whether 'tis nobler to suffer
the slings and arrows <00:37:43:01> <00:37:46:22>

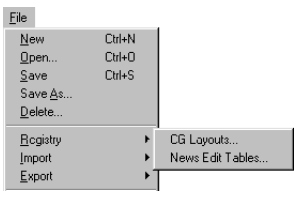
of outrageous fortune, or to take
arms against a sea of troubles. <00:37:50:22> <00:37:53:09>

Create a Subtitle File

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and select Style 10 from the Formatting palette.

2 Switch to the View tab and change the Baseline value to 385.

3 Select File→Registry→CG Layouts and click on Add.



4 Change the template number to 150 and the template name to Subtitle template, then click on Load and then Close.

5 Select Programs→Accessories→Notepad from the WindowsNT Start menu. Enter the following text into Notepad.

Make sure that there is a blank line between each line of text.

To be or not to be, that is the question:
Whether 'tis nobler in the mind to suffer
the slings and arrows of outrageous fortune,
or to take arms against a sea of troubles
and by opposing, end them.

6 Save the file as Hamlet.txt.

7 In CG/S, select the subtitle template you created and select File→Import→Import Text File.

8 Select Hamlet.txt and select the Subtitle Format radio button.

Click on OK.

Importing Subtitle Files

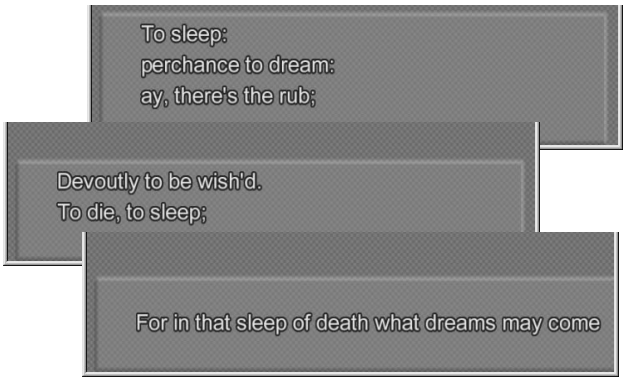
Subtitle files should be imported into layouts designed specifically for use with subtitles.

Create a Subtitle Template

CG uses a fresh copy of the current template for each subtitle page when you import subtitles into a Play List. You probably need to create a template for your project. See "Understanding Templates" on page 154 for details on creating templates. You also need to add your template to the Templates registry.

When you import text, the text is placed on the bottom line of the layout. If the text fills more than one line, the first line is bumped up a line and the bottom two lines are filled.

You can add graphic objects to your subtitle template. Any graphic objects are treated as size-to-fit bounding boxes and resized to fit around the text imported on each layout. The example below shows you what happens when you import lines of various length on top of a rectangle in the template.


To sleep:
perchance to dream:
ay, there's the rub;
Devoutly to be wish'd.
To die, to sleep;
For in that sleep of death what dreams may come

If you want a static graphic object in your background that is not resized, create a .tga image and import it as a background image. See "Using Video and Image Backgrounds" on page 68 for details.

Import Subtitle Files

A subtitle file is created outside of CG/S, generally in a text editor. Subtitles can include the same format codes that News Edit Tables use. See "Subtitle File Types" on page 168 for details on creating subtitle files for import into CG.

Before you import a subtitle file, make sure you select your subtitle layout template from the template list on the CG toolbar.

To import a subtitle-only or a timecoded subtitle file, select File→Import→Import Text File. Remember to select the Subtitle Format radio button. If you do not select the Subtitle Format radio button, your files are imported as rolls, not as subtitles.

To import an EBU-based subtitle file, select File→Import→Import EBU Subtitle File. In the Import Text dialog, locate and select the file containing your subtitles and select the Subtitle Format radio button.

When you select Open to import your subtitle file, the Subtitle Import dialog appears, and indicates how many pages of subtitles you are importing.

After you import a subtitle format, save the Play List using File→Save.

Set Timing Values

When you import a Subtitle-Only file, you have to set timing values for each layout. When you import a timecoded or EBU-formatted subtitle file, CG automatically converts the timecodes to a usable format. These subtitles can be taken to video without modifying or editing the timing or transitions. You can view timing components in Sequencer.

For subtitle-only files, you need to set the timing values for each subtitle using Sequencer. You can either mark the in and out points for each page, or mark the in points and modify the duration for each page. See "Understanding Event Duration" on page 192 for details.

Sequencer changes the out point values to fill any gaps before you can play back the sequence. In Sequencer, timecodes must be consecutive, with no gaps in the sequence.

If you want blank screens between some subtitle pages, you can set a transition duration on a cut transition. The display then clears the output to video after the duration elapses. The display stays at full video until the next event in the Play List is triggered. See "Configuring for Time Code Use" on page 200 for details.

For timecoded subtitles, in points are maintained. The time until the next in point is divided into two sections, duration and wait. Duration runs from the in point to the out point, and the subtitle is visible. Wait runs from the out point to the next in point, and the subtitle is not visible.

See the procedure "Set Up and Run Events for Subtitling" on page 193 for details on modifying your subtitles using Sequencer.

Create a TimeCoded Subtitle File

This procedure assumes that you have completed the previous procedure, "Adding, Editing, and Updating a News Edit Table" on page 167, and saved the Hamlet.txt file.

1. Select template 150 Subtitle Template from the Templates registry drop-down list on the CG toolbar and select File→Import→Import Text File.
2. Select Hamlet.txt and check the Subtitle Format radio button. Click on OK.
3. Switch to Sequencer and click on the first event and set the out point to 00:00:05:00. Now, click on the second event and set the out point to 00:00:10:00.
4. Click on the third event and set the out point to 00:00:15:00, click on the fourth event and set the out point to 00:00:20:00, and click on the fifth event and set the out point to 00:00:25:00.
5. Select File→Export→Export Subtitle Text File. Save the file as Hamlet Out.txt.
6. Select Programs→Accessories→Notepad from the Start menu and open Hamlet Out.txt.
7. Change a line of the text and save the file.
8. In CG/S, select File→Import→Import Text File and select the Subtitle Format radio button.

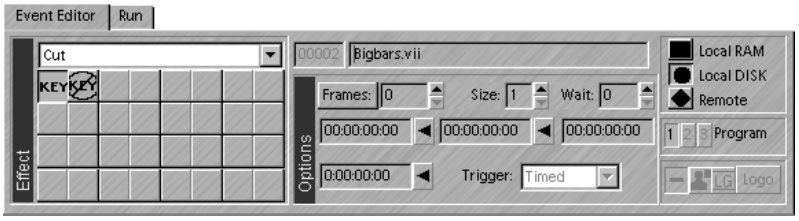
The timecodes in Sequencer are unchanged, but the text is different.

Playing Subtitle Files, Versioning, and Troubleshooting

Before you play back a series of subtitles, you need to make some changes to the Sequencer settings. If you are doing versioning, you need additional information on exporting, modifying, and reimporting subtitle files. This section also includes some troubleshooting tips.

Set Subtitle Entries to Remote

After you have imported your subtitle file into CG, you should switch to Sequencer and set the render location of all of your entries to Remote. Remote renders the layouts directly to memory at run time, instead of writing them to disk when you go online, and saves you time. However, if you have sections with complex formatting or that need extremely fast display time, you should set these entries to Local Disk. The render location options are located on the Event Editor tab in Sequencer. To change event options, select your events and then click on one of the options.



If you need to adjust the timing of your subtitle file because your source material has changed, or you have a static delay, you can use the Timecode Offset option in Sequencer. The offset is applied from the selected layout to the end of the Play List.

Play Back Imported Subtitles

To play back your subtitle Play List, go online and either start the timecode source and run the job, or use the manual trigger option to perform your takes.

Versioning

CG lets you export subtitles and timecodes to a text file. You can edit the file and import it back into CG. The export feature is also useful when creating multiple versions of a video, each in a different language.

To subtitle a video in different languages, import a subtitle file containing subtitles in the original language into CG. Set up timecodes for each layout and make sure they are correct by running the Play List in Sequencer. You must export the subtitles to a text file. The exported file is in timecoded subtitle format. Translate the text, but do not modify the timecodes in the exported file. Import the resulting file into CG as a timecoded subtitle file.

The timecoded subtitle file that you export can be given to a translator who can translate the subtitles into a different language and insert the translations into the file using any ASCII text editor. You can use this technique to replace the text of a translation without having to redo the timecodes for each transition. If translation significantly changes the length of your file, you will need to alter your timecodes and offset values.

Tips and Troubleshooting

When you create subtitle files, make sure that they are saved as pure ASCII text. If you are not sure how your text editor saves files, open the file in Windows Notepad to make sure there are no hidden control characters.

If odd or unexpected characters appear in CG after you import a text file, or CG stops or freezes when importing a file, the file probably contains some hidden control characters. Re-open the file in your text editor and check for unexpected characters. Notepad from Windows generally shows you all control characters. You can also try saving the title with another text format.

If your subtitles lag behind during playback, clear the Live Update and Live Program checkboxes on the Run tab in Sequencer. Clearing these checkboxes disables the Program/Preview palette and improves the playback speed. When you reduce the amount of updating you do on a computer screen, your playback speed improves significantly.

Supported EBU Format Features

CG supports the EBU file format for subtitles with non-overlapping timecodes. CG ignores any other elements of the EBU N19 specification. When creating EBU-based subtitle files, make sure that your editor follows EBU N19 guidelines.

To create EBU format files, use an EBU subtitling editor to create .stl files. These files can be imported into CG using the File→Import→Import EBU Subtitle File option. Only text and timing options are used. Any positioning and formatting options are ignored. Overlapping timecodes are also resolved to non-overlapping timecodes.

Create a Subtitle File Using Formatting Codes

1 Select the Documentation Template from the Templates registry drop-down list on the CG toolbar and select Style 10 from the Formatting palette.

2 Switch to the View tab and change the Baseline value to 385.

3 Select File→Registry→CG Layouts and click on Add.

4 Change the template number to 150 and the template name to Subtitle template, then click on Load and then Close. Changing the template number overwrites the a previous Subtitle template.

5 Select Programs→Accessories→Notepad from the Start menu and enter the following text into Notepad. Make sure that there is a blank line between each line of text.

```
@@2 To be or not to be, that is the question:
@@32 Whether 'tis nobler in the mind to suffer
@@24 the slings and arrows of outrageous fortune,
_ _or to take arms against a sea of troubles
@@24 _ _and by opposing, end them.
```

6 Save the file as Hamlet.txt. You are overwriting the old file.

7 In CG/S, select the subtitle template you created and select File→Import→Import Text File.

8 Select Hamlet.txt and check the Subtitle Format radio button.

Click on OK. Each Subtitle page uses a different style.

Sequencer

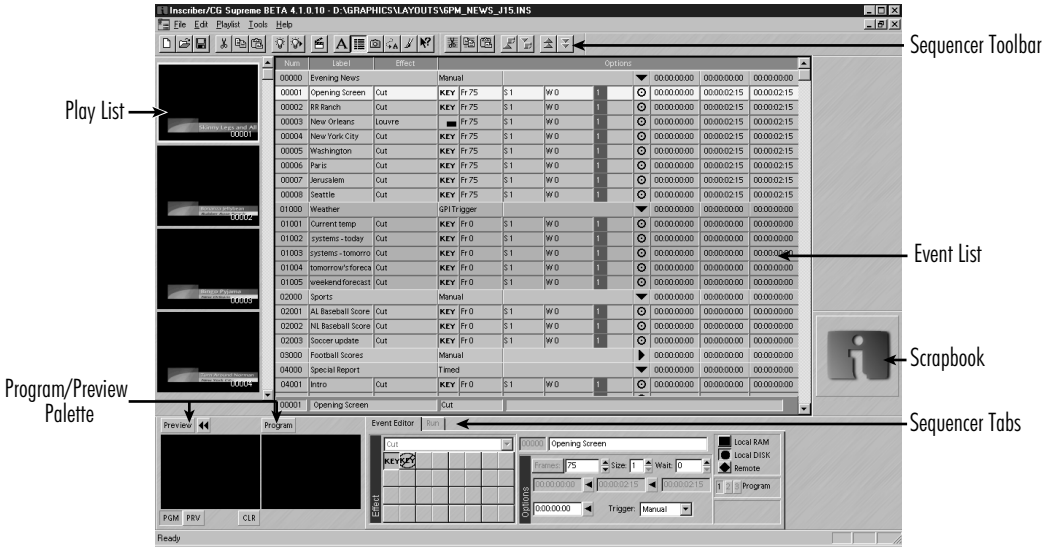
Sequencer is an output organizer that manages, edits, and outputs a series of events. In this module you control all online activity including takes, transitions, trigger information, and board assignment information. The Sequencer interface is equipped with several organizational tools to help you output your projects quickly and easily.

In this Section:

Sequencer Overview 176-177
Managing and Outputting Events 182-185
Using the Event Editor Tab 186-187
Transitions and Events 188-195
Trigger Types 196-201
Run Tab and Rendering 202-205
Trim Editor 206-207
Channel Setup, Tips and Tricks 208-213
Setting Sequencer Preferences 214-215

Sequencer—Interface Overview

Sequencer manages, edits, and outputs a series of events. The Sequencer tools help you output your projects quickly and easily, giving you control over all online activities including takes, transitions, trigger types, and board assignment information. There are six main Sequencer components: Sequencer toolbar, Event List, Sequencer tabs, Play List, and Program/Preview palette.

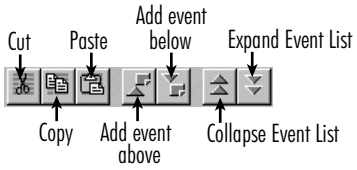


Switch to Sequencer

To switch to Sequencer, click on the Sequencer icon on the CG/S toolbar. You can also select a specific module from the Tools menu, which is accessible throughout CG/S.

The Sequencer Toolbar

The Sequencer toolbar contains some of the common Sequencer actions. You can cut, copy, and paste events in the Event List, add new events, and expand or collapse the Event List view.



Event List

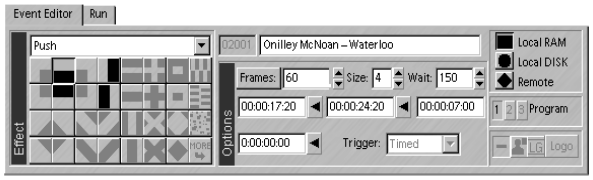
The Event List is the Sequencer workspace window. It displays all relevant information for each event and group header. You can apply timing, transitions, and trigger information to each event in the Event List.

Num	Label	Effect	Options						
00000	Group		Timed				00:00:00:00	00:00:00:00	00:00:00:00
00001	Report Title	Cut	KEY	Fr 0	S 1	W 0	00:00:00:00	00:00:00:00	00:00:00:00
00002	Web Site	Cut	KEY	Fr 0	S 1	W 0	00:00:00:00	00:00:00:00	00:00:00:00
00003	closing	Cut	KEY	Fr 0	S 1	W 0	00:00:00:00	00:00:00:00	00:00:00:00
00004	Event	Cut	KEY	Fr 0	S 1	W 0	00:00:00:00	00:00:00:00	00:00:00:00

Both the Event List and the Play List contain the events for the current project in the order that they are output. While the Play List only allows you to arrange the output order of the events, the Event List manages all event and group attributes.

Sequencer Tabs

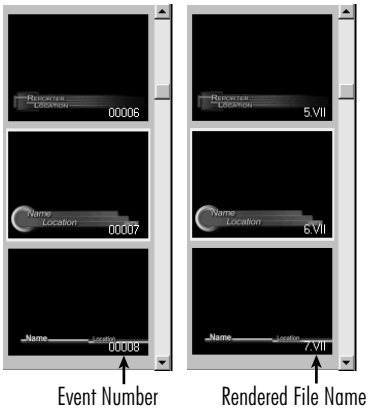
There are two Sequencer tabs: the Event Editor tab and the Run tab. The Event Editor tab lets you edit your event list both on and offline. This includes changing trigger types and transitions, setting in and out points, and changing the render location. The Run tab is important for sending your Sequencer events to video and monitoring the details of the take. You can only access the Run tab when you are in online mode.



Play List

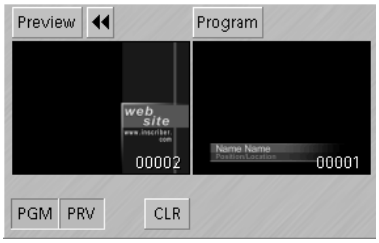
The Play List is a palette that contains thumbnails of the events in the Event List. If the event is a roll or crawl, the thumbnail shows the first page or frame of the event.

The Play List displays either the event number or the rendered filename for every event in the list. By default, CG/S displays the event number. You can display the rendered filename by checking the Show Filename in Job Strip box on the General tab of the Preferences dialog. See "Using the Play List" on page 12 for details.



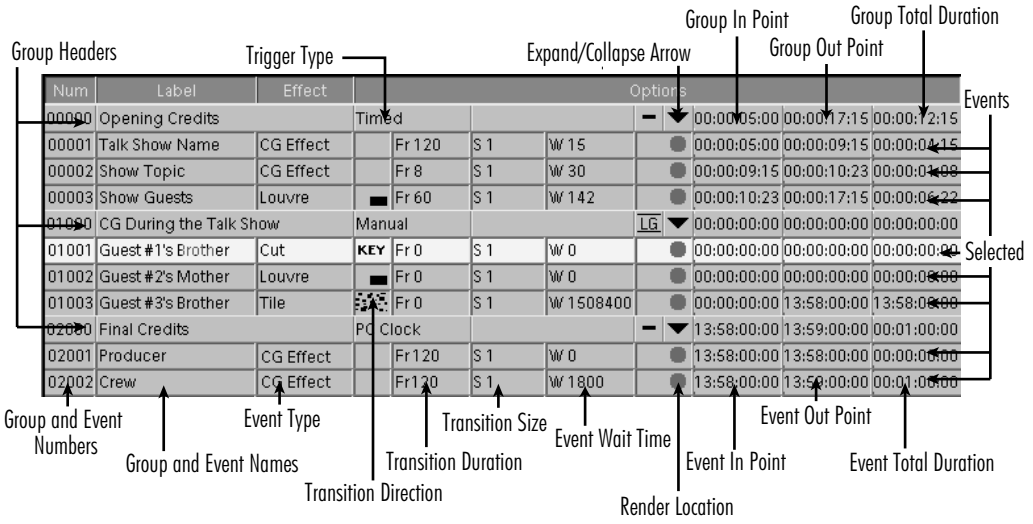
Program/Preview Palette

The Program/Preview palette displays a thumbnail of the contents of each Program and Preview Channel. If you have a multiple-board system, you can stretch the palette to see all of your boards, or you can scroll through the display to see each board separately. Click on the arrow buttons to show or hide additional board thumbnails.See "Using the Program/Preview Palette" on page 14 for details.



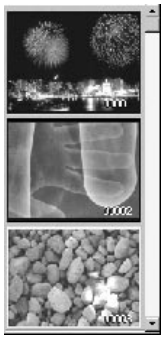
Getting Started in Sequencer

In Sequencer, you manage and output events created in CG/S or imported from other applications. The Event List is an output organizer that provides controls and information for running event sequences online. This topic provides a brief overview to get you started using the main functions in Sequencer.


Group Headers
Trigger Type
Expand/Collapse Arrow
Group In Point
Group Out Point
Group Total Duration
Events
Selected
Num
Label
Effect
Options
00000 Opening Credits Timed 00:00:05:00 00:00:17:15 00:00:12:15
00001 Talk Show Name CG Effect Fr 120 S 1 W 15 00:00:05:00 00:00:09:15 00:00:04:15
00002 Show Topic CG Effect Fr 8 S 1 W 30 00:00:09:15 00:00:10:23 00:00:01:08
00003 Show Guests Louvre Fr 60 S 1 W 142 00:00:10:23 00:00:17:15 00:00:06:22
01000 CG During the Talk Show Manual LG 00:00:00:00 00:00:00:00 00:00:00:00
01001 Guest #1's Brother Cut KEY Fr 0 S 1 W 0 00:00:00:00 00:00:00:00 00:00:00:00
01002 Guest #2's Mother Louvre Fr 0 S 1 W 0 00:00:00:00 00:00:00:00 00:00:00:00
01003 Guest #3's Brother Tile Fr 0 S 1 W 1508400 00:00:00:00 13:58:00:00 13:58:00:00
02000 Final Credits PC Clock 13:58:00:00 13:59:00:00 00:01:00:00
02001 Producer CG Effect Fr 120 S 1 W 0 13:58:00:00 13:58:00:00 00:00:00:00
02002 Crew CG Effect Fr 120 S 1 W 1800 13:58:00:00 13:59:00:00 00:01:00:00
Group and Event Numbers
Group and Event Names
Event Type
Transition Direction
Transition Duration
Transition Size
Event Wait Time
Render Location
Event In Point
Event Out Point
Event Total Duration

Create an Event List

The Event List provides detailed information for managing and outputting every event in the Play List. There are two main objects in the Event List: the event line and the group header.



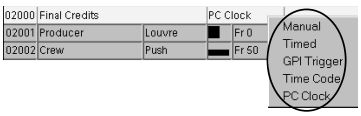
To build an Event List, add graphics, layouts, and animations to the Play List from other CG/S modules or external applications, then click on the Sequencer button on the CG/S toolbar to switch to Sequencer and set timing and transition options for each event.

Set Transitions

Transitions determine the way each new image appears on screen when you do a take. CG/S offers six transition types, and you can set direction, duration, and size options for each transition in your Event List. Transitions are set from the Event Editor tab. See "Creating Transition Events" on page 188 for details.

Set the Trigger Type

Trigger types control how you output events to video. You can trigger events manually or with a timed method. There are five trigger types available in Sequencer: Manual, Timed, GPI Trigger, Time Code, and PC Clock. Triggers are set for an entire group, not for individual events.



To change the trigger type, right-click on the group trigger type and select a new type from the right-click menu. You can also use the drop-down menu on the Event Editor tab to switch triggers.
See "Understanding Trigger Types" on page 196 for details.

Set Timing

Timing methods change depending on the trigger type assigned to a group of events. Manual and GPI triggers rely on external manual input to trigger events. For time-dependent triggers, the group timing fields display group in/out points and group duration. These fields are not editable; you can only edit timing information for individual events.

To edit trigger and timing information, select the group header and right-click on the trigger type. Select one of the time-dependent triggers from the menu: either Timed, Time Code, or PC Clock.

Next, select the first event in the group and click on the in point. The in point field on the Event Editor tab is also selected. Change the in point on the Event Editor tab (time is measured in hours:minutes:seconds:frames), and press the TAB key to set the in point. The out point is automatically set to the in point plus the event duration.

When you take the sequence, the second event starts when the first event ends. The time-dependent triggers run sequences according to the set in and out points. Sequencer does not allow for gaps between events.

Group Events

To create a new group, select an event in the Event List. From the Edit menu, select Insert Group Header. A new group header is inserted above the selected event. Notice the changes in the Event List after you add the new group header:

- The event numbers on the Event List are updated to display which group each event belongs to (first two digits) and its position within that group (last two digits).
- The default trigger type (Timed) is automatically assigned to each new group.
- The group in point displays the start time for the first event in the group. The group out point displays the end time for the last event in the group. The Group Total Duration displays the time it takes for all the events in the group to run. Time is measured in hours:minutes:seconds:frames.

Run the Event Sequence

Once you have set all the options for your Event List, switch to online mode by clicking on the Online Toggle button on the CG/S toolbar. Switching to online mode automatically renders all the events in your Event List, so you can quickly output your job to video.

To take only the selected event, click on the Take button on the Run tab. To run the entire Event List, click on the first event in the list, then click on the Run Job button on the Run tab.

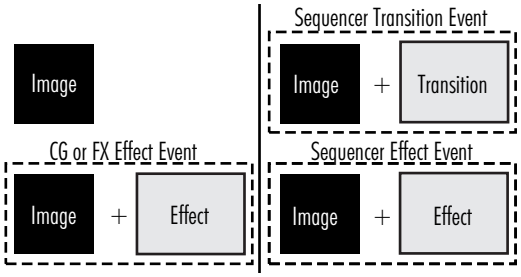
To stop the job, click on the Stop button on the Run tab.

Groups and Events

There are two primary Sequencer elements: events and groups. Events are the image files that you send to video, while groups apply controls affecting the output of an event sequence. Each event is always part of a group; Sequencer automatically creates a group when you add an event to the Event List.

What are Events?

Events are based on an image file and describe how that image changes over time. There are two different types of events in CG/S: transition events and effect events. Transition events combine an image with a transition. Effect events add motion effects to images. The effects are applied to the image in CG or an animation application such as FX (available as a plug in for CG/S).



Transition Events

A transition event is created in Sequencer by adding a transition to an image. CG/S offers six transition types: cut, wipe, tile, louvre, dissolve, and push. See "Creating Transition Events" on page 188 for details.

Effect Events

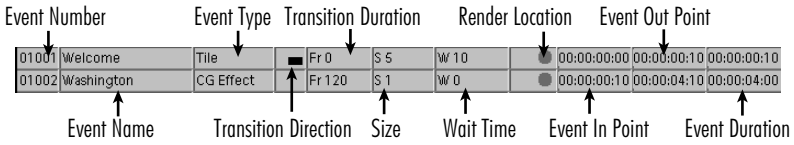
An effect event is an image file that includes a motion effect, such as a roll, crawl, reveal, or animation. Rolls, crawls, and reveals are defined in CG, and are therefore called CG effects. Animations are created in an animation application. These effects can be defined in CG/S if you have purchased the Xtreme plug-in option, which enables FX. Otherwise, you can create animations in other applications and then import them into CG/S.

If you apply a transition to an effect event, the motion effect is removed and you may not be able to retrieve the effect.

Event Attributes

All events have a number, name, type, wait time, and render location. These attributes control how the event is output to video.

- The event number describes the position of the event within the group.
- The event name is automatically filled in, but you can enter a descriptive name on the Event Editor tab.
- The event type describes the transition or effect associated with the event.
- The wait time controls how long Sequencer waits before going to the next event.
- The render location determines where the final events are rendered when you go online: on local disk, local RAM, or remote.



What are Groups?

Groups are used to separate events into categories. For example, you may want to group a set of events by reporter name, sporting event, or time slot. Groups are helpful for chunking large event categories into manageable units.

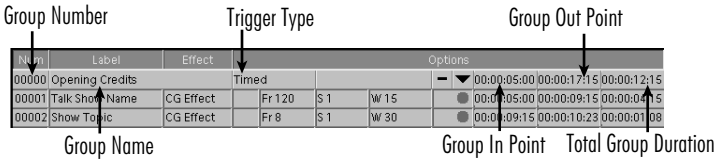
You can create a group by inserting a group header in the Event List (Edit→Insert Group Header). Every event that falls between the new group header and the next header belongs to the new group.

Group headers contain the trigger information that applies to an entire group of events. If you want to change the trigger type for certain events in your job, you must create a new group for each time the trigger type changes. The default trigger type for each new group is Timed, but you can change the default in the Preferences dialog. See "Setting Sequencer Preferences" on page 214 for details.

Group Attributes

All groups have a name, number, and trigger type. These are all automatically generated by Sequencer when you create a group, but you can change the group name and trigger type.

- The group number describes the position of a group within the Event List.
- The group name describes the group contents. You can change the name on the Event Editor tab.
- The trigger type specifies what trigger is used for all events in the group. The default is Timed, but you can change the trigger type on the Event Editor tab.



Create a Group and Change the Trigger Type

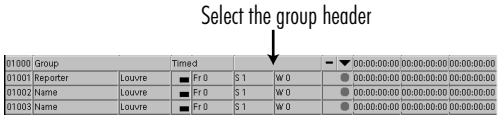
1 Create a Play List.

2 Click on the Sequencer button to switch to Sequencer.

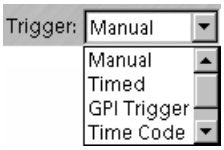
3 From the Event List, select the first event Event List that you want in the new group.

4 Select Edit→Insert Group Header.

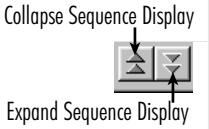
5 Click on the group header.



6 Select the group trigger type from the Trigger drop-down list on the Event Editor tab.



7 Select the arrow (▼)on the group header to collapse or expand a single group. Select the Collapse Sequence Display and Expand Sequence Display buttons on the Sequencer toolbar to collapse and expand all groups.



8 To delete the new group, select the group header, then select Edit→Delete Group Header. Only the group header is deleted; the group events remain intact.

Managing and Editing the Event List

You can edit a group in two ways: Insert Group Header and Delete Group Header. You can edit an event in four ways: Log Event, Cut Event, Copy Event, and Paste Event. These four editing functions are available in any CG/S module from the Playlist menu.

Select Groups and Events

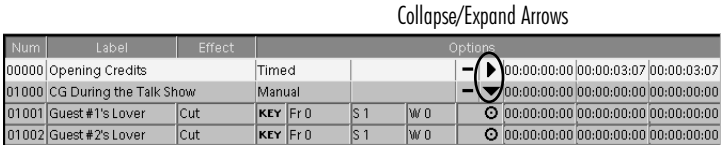
You can select single or multiple groups or events from the Event List, and select groups and events at the same time. To make multiple selections, use the SHIFT and CTRL keys. You can use the Play List to select events while working in other modules, but you can only select one event at a time from the Play List.

Manage a Large Event List

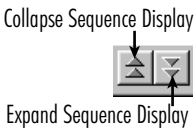
Dividing an Event List into groups makes the scrolling display more manageable for a large sequence of events. Once you have divided your sequence into groups, you can collapse the view so that all you see in the Event List are the group headers and all you see in the Play List are the first events in each group. Sequencer automatically creates a new group if you add more than 999 events to a group.

View Groups

You can collapse and expand the group views in both the Event List and the Play List. The graphic below shows a collapsed and an expanded group view in the Event List.



To collapse and expand the view for individual groups, click on the Collapse/Expand Arrow on the group header you wish to collapse or expand. To collapse all group views, click on the Collapse Sequence Display button on the Sequencer toolbar. Click on the Expand Sequence Display button to expand all group views.



Create and Delete Groups

You can create a group by selecting the first event to appear in the new group and selecting Edit→Insert Group Header. If you select multiple events and select Edit→Insert Group Header, Sequencer inserts a header for every event selected. See "Create a Group and Change the Trigger Type" on page 181 for details.

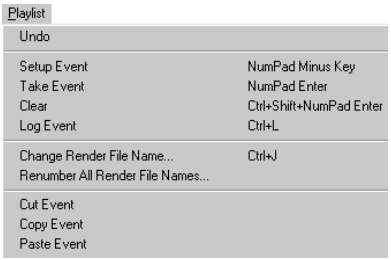
To delete a group header, select the group header and then select Edit→Delete Group Header. When you delete group headers, only the headers are removed; the events remain intact. You can only insert and delete group headers in Sequencer.

Add Events

To add a blank event to the Event List using the current Registry template, use the Log Event Up or Log Event Down buttons. The Log Event Up button inserts an event above the selected event, while the Log Event Down button inserts an event below the selected event. You can also insert an event below the selected event by selecting Playlist→Log Event.

Cut and Delete Events

You can cut and delete events using the Playlist menu from any CG/S module. To cut or delete an event, select the event from the Event List or Play List and select Playlist→Cut Event, or click on the Cut Event button on the Sequencer toolbar. The event is deleted if you copy or cut another event before pasting the first event. You can cut group headers from the Event List, but you can't paste them.



Copy Events

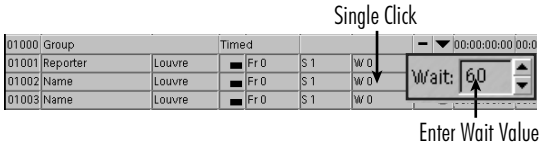
To copy an event, click on the event and select Playlist→Copy Event. Alternatively, you can drag and drop events within the Play List. See "Using the Play List" on page 12 for details. Copying an event copies all event information not contained in the group header. You can copy events in any CG/S module.

Paste Events

To paste events, select the event you want your pasted event to follow and choose Playlist→Paste Event. You can paste events in any CG/S module.

Select Event or Group Attributes

To select event or group attributes, click on the specific attribute in the Event List. This automatically selects the attribute in the Event Editor tab. For example, to edit the Wait time for an event, select Wait from the event line, enter the new value on the Event Editor tab, and press TAB on the keyboard. You can also select attributes directly from the Event Editor tab.


Single Click
01000 Group
Timed
01001 Reporter Louvre Fr 0 S 1 W 0
01002 Name Louvre Fr 0 S 1 W 0
01003 Name Louvre Fr 0 S 1 W 0
Wait: 60
Enter Wait Value

Edit the Event List

1. Create a Play List with ten events and switch to Sequencer.
2. Use the SHIFT and CTRL keys to select events 00004, 00006, 00007, and 00009. Select Edit→Insert Group Header. You should now have five groups.
3. Click on group 02 and select Edit→Delete Group Header.
4. Click on the Collapse/Expand arrows for the second and third groups to collapse the group views. Only the group headers appear in the Event List, and only the first event in each group appears in the Play List.
5. Select event 03001 and click on the Log Event Down button on the Sequencer toolbar to add an event below event 03001.
6. Click on the new event and select Playlist→Cut Event.
7. Click on event 00003 and select Paste Event from the Sequencer toolbar. The cut event now appears in group 00.
8. Click on the Collapse Sequencer Display button in the Sequencer toolbar to view only the group headers in the Event List.

Outputting Events to Video

Sequencer provides various options for you to output an Event List. You can toggle between online and offline modes, you can run an entire sequence or take a single event, you can send events directly to video or preview them on a Preview Channel.

Online vs. Offline Mode

Sequencer operates in two distinct modes: online and offline. To switch between online and offline mode, click on the Online Toggle button located on the CG/S toolbar. You can switch modes from any module.

The following table describes the differences and similarities between online and offline mode.

Online Mode	Offline Mode
• allows you to edit, preview, and take events	• allows you to edit, preview, and take events
• all events are pre-rendered for faster takes	• events must be rendered each time you do a take, slowing down take times
• events are re-rendered each time a change is made, slowing down event editing	• events are not rendered until you do a take, allowing for quick editing

Edit Events Online

You can perform most event editing functions online, with a few limitations. When you make editing changes in online mode, events are re-rendered right away to reflect the changes. This can slow down editing speed considerably.

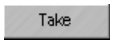
If you change the render location while online, Sequencer won't automatically update the rendered file. You must go offline and then back online to force Sequencer to re-render the image in the proper location.

Similarly, when you add an event to the Event List while you are online, Sequencer treats the event as a remote event (an event that is not saved on your local disk space or RAM, but in a remote location such as a network drive). The remote event is not rendered until you try to setup or run it. If you want to render the new event to RAM or to disk, you must go offline and then back online. Going online the second time is faster than moving online initially, because events that are already rendered do not have to be re-rendered. See "Render Location and Rendered Images" on page 204 for details.

To take the entire sequence from the beginning, select the Play Direct button. If CG/S is offline, it automatically goes online, renders the images to file, and plays back the events. CG/S stays in online mode once it has finished the take.

Sequencer Take Options

Once you have set up your Event List, there are several ways of sending your job to video. The following table describes the various ways of doing a take or running a job in Sequencer.

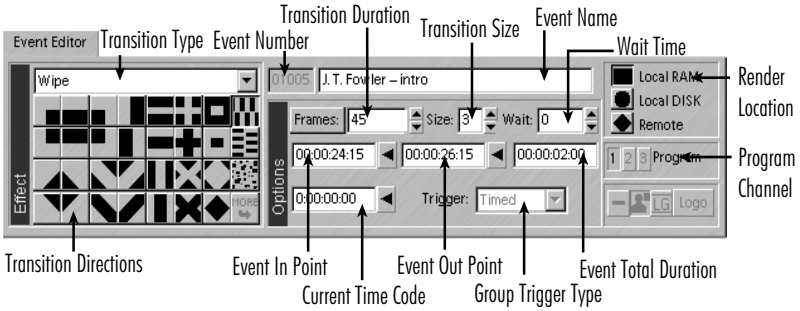
Option	Description
Play Direct button	Runs the entire job from the beginning. If CG/S is offline, it automatically goes online to render the events before output. CG/S stays online once it has run through the event sequence.
Take button	Takes an event without loading the next event into the Preview Channel. This has the same effect as pressing the ENTER key on the number pad.
Take button 	Takes the selected event and loads the next event into the Preview Channel. This has the same effect as using the PLUS key on the number pad.
Take Down button	Takes the selected event and loads the next event into the Preview Channel. This has the same effect as using the PLUS key on the number pad.
Run Job button	Runs the Event List, beginning with the selected event. Playback continues to the end of the job.
ENTER key (Number pad)	Takes an event without loading the next event into the Preview Channel. This has the same effect as using the Take button on the CG/S toolbar.
PLUS key (Number pad)	Takes an event and loads the next event into the Preview Channel. This has the same effect as using the Take button on the Run tab.
MINUS key (Number pad)	Provides a preview of your event. Your event thumbnail is displayed on the Preview palette.

Take Images

1. Create a Play List in CG, then switch to Sequencer.
2. Select the first event and press the ENTER key on the number pad to take the event.
3. Scroll down the Play List and select another event.
4. Click on the MINUS key to load the selected image into the Preview Channel.
5. Press the PLUS key on the number pad to take the selected event and load the next event into the Preview Channel.
6. Click on the CLR button on the Program/Preview palette to clear the frame buffer.
7. Click on the Take button on the toolbar to take the event previously loaded into the preview channel.
8. From the CG/S toolbar, click on the Play Direct button to go online and run the entire Event List.
9. Click on the Take Down button on the Run tab to take the selected event and load the next event into the Preview Channel.
10. Select an event midway through the Event List, then click on the Run Job button on the Run tab to run the job starting from the selected event.

Using the Event Editor Tab

The Event Editor tab allows you to edit your event list both on and offline. This includes changing trigger types and transition details, setting in and out points, and changing the render location.

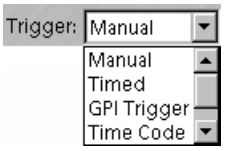


Rename Groups and Events

The Name field on the Event Editor tab allows you to rename your groups and events so they can be easily identified in the Event List. Click on the group or event name in the Event List, or click directly in the name field, and type in a new name. When you are finished, press TAB to update the changes.

Change the Trigger Type

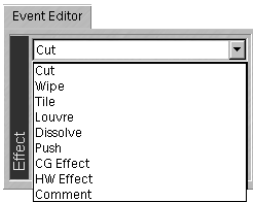
Trigger types control how you run event sequences online, and are set on a group-by-group basis, not by event. Select a new trigger type from the Trigger Type drop-down list on the Event Editor tab, or from the right-click menu on the current trigger type field on the group header in the Event List. See "Understanding Trigger Types" on page 196 for details.



Add a Transition

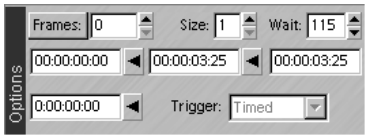
Transitions control the way an image moves onto the screen. CG/S offers six different transition types: cut, wipe, tile, louvre, dissolve, and push. Availability of these transitions depends on which type of frame buffer you are using.

When you add an event to the Play List, Sequencer automatically assigns the default Cut transition. You can change the transition type, direction, size, and duration on the Event Editor tab. Select a new transition from the Transition Type drop-down list, assign a direction from the buttons below the Transition Type list, set the size in the Size field, and the duration in the Frames field. See"Creating Transition Events" on page 188 for details.



Set In and Out Points

In and out points determine when Sequencer begins and ends a take for each event. The way you set in and out points changes depending on the group trigger type, but all in and out points can be set using the In Point and Out Point fields on



the Event Editor tab. See"Understanding Event Duration" on page 192 and "Understanding Trigger Types" on page 196 for details.

Change the Render Location

The Event Editor tab lets you determine where the final events are rendered when you go online. You have three choices: local disk, local RAM, or remote location. Each option is useful in different situations.

You also control whether images are rendered to disk or memory file before Sequencer runs. Pre-rendered images are displayed much faster than images that must be read from a remote network drive, but pre-rendered images take up significant local disk drive space or RAM.

See "Render Location and Rendered Images" on page 204 for details on selecting the render location and pre-rendering your events.

Select the Program Channel

The Program buttons on the Event Editor tab allow you to quickly set the Program Channel for each event in your Event List. Simply select the event line in the Event List and click on Program button 1, 2, or 3 to set the output channel. See "Setting Up Channels and Channel Ripples" on page 208 for details on configuring CG/S for multiple channel output.

Add Groups to an Event List

1 Create a Play List with at least ten events.

2 Click on the Sequencer button to switch to the Sequencer module.

3 Click on event number 00007 in the Event List.

4 Select Edit→Insert Group Header to insert a group. Event number 00007 becomes event number 01001. The first two digits represent the group number starting at group 00. The last three digits represent the event position in the group.

5 Click on the second group header (number 01000).

6 Click on the arrow icon on the group header line to collapse the group view. Notice only the first event thumbnail is displayed in the Play List for the collapsed group.

7 Click on event number 00004 in the Event List.

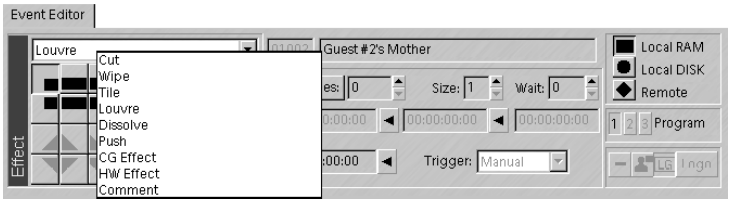
8 Select Edit→Insert Group Header to insert a group. Now the Event List contains three groups.

9 Collapse the group view for the new group. The Play List should now contain thumbnails for each event in the first group, and only thumbnails for the first events of the second and third groups.

10 Right-click on each group trigger type and select a new trigger for the group.

Creating Transition Events

Transition events are created in Sequencer by adding a transition to an image. When you add an event to the Play List, Sequencer automatically assigns the default Cut transition. You can change the transition type and other event characteristics on the Event Editor tab. Support for various transitions depends on your frame buffer hardware.



What are Transitions?

A transition changes the way an image moves onto the screen. CG/S offers six different types of transitions: cut, wipe, tile, louvre, dissolve, and push. Cuts display the entire image instantly. Wipes gradually reveal the new image in a specific pattern. Tiles reveal the new image one square at a time. Louvres divide the image into strips and wipe on all strips at the same time. Dissolves fade from one image to the next. Pushes move the new image on and the old image off in a specific direction. See “Selecting a Transition Type and Direction” on page 190 for details. Not all frame buffers support all transitions.

Transition Parameters

Transitions add to the visual presentation of the image online. A complete transition definition has four components: type, direction, size, and duration. Not all transitions use all the components, so any extra information is ignored.

Transition Type	Duration	Direction	Size
Cut	✓		
Dissolve	✓		
Push	✓	✓	
Wipe	✓	✓	
Tile	✓	✓	✓
Louvre	✓	✓	✓

Transition type assigned to the image appears in the Event List. Select a new transition from the Event Type drop-down list on the Event Editor tab.

Direction

There are up to 31 transition directions to choose from. The transition direction only applies to wipe, tile, louvre, and push transitions. Direction determines where the new image starts to appear on the screen. Wipes can use any transition direction; tiles and louvres only use some of the directions.

Choose a new transition direction in Sequencer with the options on the Event Editor tab or in Store with the direction buttons on the Transition tab. When you look at the direction buttons, think of the button as the entire display screen. The image appears in the dark area first and spreads to the light area. See "Selecting a Transition Type and Direction" on page 190 for a graphical description of transition directions.

Size

The transition size value is used by some transitions to determine how much of the image is revealed at one time. This is sometimes referred to as the transition granularity. If the transition is a louvre, for example, Size sets the size of the slats. If the transition is a tile, Size determines how large the image squares are. Size ranges from 1 (small) to 5 (large).

There are two places to change the transition size. In Sequencer, use the options on the Event Editor tab. In Store, use the options on the Transition tab.

All tile and louvre directions need a size value. Two wipe directions also need a size value: horizontal-gate and vertical-gate.

When assigning a size value, you should note that some transition types, such as louvres, may appear jumpy with small size values (1 or 2).

Duration

The transition duration determines how long your transition takes to display the image. Set duration from the Frames field on the Event Editor tab. If you don't set a duration, the field will read 0, but your transitions will actually play out in 30 frames (1 second in NTSC). You can also click on the Frames button to set the transition speed rather than number of frames. See "Understanding Event Duration" on page 192 for details.

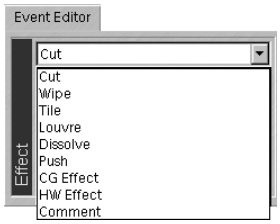
Define a Transition

1 Create an Event List containing three transition events.

2 Select all three events.

3 Click on the Online Toggle button from the toolbar to set CG/S to online mode.

4 Select all three events and click on the Transition Type drop-down list on the Event editor tab and select Wipe.



5 Select the horizontal-gate transition direction button below the Event Type drop-down list.

6 Set the transition size. Select the first event and enter 5 in the Size field on the Event Editor tab. Select the second event and enter 3 in the Size field. Select the third event and enter 1 in the Size field.

7 Set the transition duration. Select all three events and enter 60 in the Frames field if you are working in NTSC, or 50 if you are working in PAL. The transition will be completed in 2 seconds.

8 Click on the Run Job button on the Run tab to run the event sequence. Note the effects of the different transition size values.

Selecting a Transition Type and Direction

Transition type determines how each new image moves onto the screen. CG/S supports six types of transitions: cut, wipe, tile, louvre, dissolve, and push.The transitions available to you in CG/S depend on the frame buffer you are using.

Transition Types

All CG/S transition types are described in detail in the table below. All transitions except dissolves maintain the key signal during the transition.

Transition	Appearance
Cut	Displays the entire image instantly. This is the fastest image display.
Wipe	Gradually wipes the new image on screen in a specific direction or pattern. There are up to 31 patterns available.
Tile	Reveals the new image one square at a time. You can set the size of the square and the general direction of the transition. There are up to 31 directions available.
Louvre	Divides the image into strips and displays the strips in a specified direction or pattern. You can set the size of the strips and the transition direction. This effect looks like you are opening venetian blinds or a louvred shutter over top of the image. There are up to 17 directions available.
Dissolve	Fades from one image to the next. This effect is subject to the hardware limits of your frame buffer.
Push	Pushes a new image onscreen and the current image offscreen in the specified direction. Four directions are available: up, down, left, and right. Not all frame buffers support all directions.

Transition Directions

CG/S supports many different transition directions. The supported directions are listed below. The directions available for transitions, other than cuts and dissolves, are dependent on the frame buffer you are using. The black portion of the following icons show where the transitions begin and the text describes the resulting direction.

up-left

up-right

down-left

down-right

up

down

diagonal-up-left

diagonal-up-right

diagonal-down-left

diagonal-down-right

left

right

diagonal-left-close

diagonal-right-close

diagonal-left-open

diagonal-right-open

horizontal-close

cross-close

horizontal-open

cross-open

vertical-close

diagonal-cross-close

vertical-open

diagonal-cross-open

box-close

box-open

vertical-gate

horizontal-gate

diagonal-box-close

diagonal-box-open

random

Change Transition Directions

1 Create a Play List with four events.

2 Click on the Sequencer button to switch to Sequencer.

3 Select all the events in the Event List (use the SHIFT key).

4 Enter 60 in the Frames field on the Event Editor tab. Press the TAB key to set the transition duration.

5 Enter 30 in the Wait field on the Event Editor tab. Press TAB or click away from the field to set the wait duration.

6 Click on the first event in the Event List and select Tile from the Transition Type drop-down list on the Event Editor tab. Change the size to 4, but leave the direction at the default.

7 Click on the second event in the Event List and select the Louvre transition and the up-right direction from the Event Editor tab. Set the size to 4.

8 Click on the third event in the Event List and select the Push transition and the left direction.

9 Click on the fourth event in the Event List and select the Dissolve transition.

10 Click on the Online Toggle button to go online.

11 Click on the first event and then click on the Run Job button on the Run tab to run the series of events. Note how the different transitions affect the way each image appears on screen.

Understanding Event Duration

Transition and effect event duration are measured and set in frames. Set the total take duration using the Frames and Wait fields on the Event Editor tab. You can also set the duration from the Speed dialog by clicking on the Frames button next to the Frames field.

Event Duration

Event duration is set from the Frames field on the Event Editor tab. This value determines how long CG/S takes to play an event. For example, if a transition is set to 50 frames, CG/S completes the transition in 50 frames (2 seconds in PAL). You can change the speed and duration of an event by adding or removing frames. An event with a Frames value set to 0 plays in 120 frames. A transition with a Frame value of 0 is completed in 30 frames.

Wait Time

You can force an image to stay on screen after the event is complete by adding wait time in the Wait field. For example, if you want an image to stay on screen for 3 seconds after it has transitioned on, set the Wait value to 90 frames (for NTSC). If no wait time is set, CG/S takes the next event as soon as it reaches the last frame of the transition or motion effect (roll, crawl, animation, or reveal).

Total Take Duration

The total take duration is the sum of the event duration (Frames field) and the wait time (Wait field). For example, for an image set to transition on screen in 30 frames and then wait for 90 frames, the total take duration is 120 frames. This is the difference between the in point and the out point for the event.

Cut Transitions and Duration

You do not need to set duration for cuts because they occur instantly. To leave the image on screen until the next event is triggered, adjust the Wait value to how long you want the image displayed on screen, but leave the Frames value at 0.

Gaps Between Events

Sequencer does not allow for gaps between events. The in point for one event is automatically adjusted to one frame after the out point for the previous event.

For cut transitions only, the Frames value can be used to remove an image from display without immediately triggering the next event. Enter the number of frames you want to display the image for in the Frames field, and the amount of time you want between events in the Wait field. When the image duration is up, CG/S clears to video for the duration of the wait time before triggering the next event. This is useful for subtitling jobs where you only want the subtitles onscreen for a set amount of time with a wait time between subtitles.

In Points and Out Points

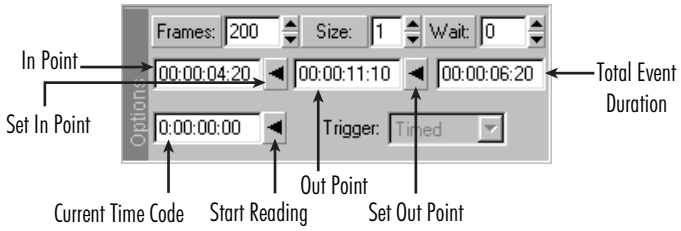
With Time Code or PC Clock triggers, CG/S begins and ends each take when the time code input reaches the in and out points, respectively. Sequencer loads the next event in the Event List into the Preview Channel during the display time. The display may fall behind the time code input if the next image is not loaded before the out point is reached. Sequencer then displays the next image as soon as it is loaded. Images aren't skipped to catch up, they are just displayed for a shorter period of time until the image display sequence catches up to the time code input.

Preserve In Points

Sequencer always preserves in point values; it only changes out point values. You cannot create overlapping intervals for events. If you try to enter an incorrect value, Sequencer does not allow you to update the changes.

Set In and Out Points

To set in and out points, type the target times in the In Point and Out Point fields on the Event Editor tab. You can also set the in and out points from the time code signal. Start the signal and turn on the display. When the time code value reaches the target time, click on the Set In Point or Set Out Point button to insert the time code. See "Configuring for Time Code Use" on page 200 for details on time codes.



Speed

Speed designates the number of scan lines an event or transition moves between fields. A single frame is divided into two fields. One field contains even numbered scan lines and the other field contains the odd numbered scan lines. The two fields are alternately displayed on your video monitor in an interlaced display.

There are two places to change transition speed. In CG, use the Roll or Crawl Settings dialog. In Sequencer, click on the Frames button on the Event Editor tab to open the Set Duration from Speed dialog.

Not all hardware supports smooth rolls or crawls at every speed. Larger values may result in jumpy effects. You can set Speed values in decimal units, but some effects work better with an integer speed. For example, if you set a transition speed of 3.5 and see a jerky transition, try a speed of 3.0 or 4.0 for a smoother display.

Increment and Decrement Speed

The Increment and Decrement Speed options increase or decrease event or transition speed a single frame at a time by adjusting wait time. To increase event or transition speed, select Edit→Decrement Speed to remove a frame from the wait time. To decrease event or transition speed, select Edit→Increment Speed.

Set Up and Run Events for Subtitling

1 Create at least four separate layouts containing text to use as subtitles.

2 Click on the Sequencer button to switch to Sequencer.

3 Select the entire Event List using the SHIFT key.

4 Type 60 in the Frames field on the Event Editor tab to set the display duration for the subtitles.

5 Enter 30 in the Wait field on the Event Editor tab. This creates a pause between subtitles. Set the wait value by pressing the TAB key or by clicking away from the field.

6 Click on the Remote button to set the render location to Remote. The remote location renders the events in real time and saves hard drive space. This location is useful when you have many subtitles, since it does not fill your hard drive with online files.

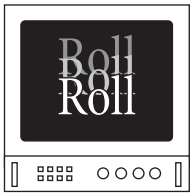
7 Click on the first event in the Event List to tell Sequencer where to start the series of events.

8 Click on the Online Toggle button to switch to online mode.

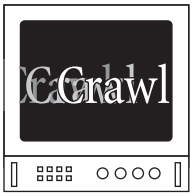
9 Select the first event and click on the Run Job button on the Run tab to run the job.

Understanding Effect Events

Effect events are image files that use motion effects. Sequencer supports four effect events: rolls, crawls, reveals, and animations. These events are called CG effects. All CG effects except animations are created in CG. Animations are created in an external animation application, or in FX if you have purchased the Xtreme plug-in option for CG/S. Applying a transition to an effect event can permanently remove the motion effect from your event. See"Choosing a Layout Type" on page 48 for more information on creating motion effects.



Rolls



Crawls

Reveals

Animation

Rolls and Crawls

Rolls scroll text and graphics up or down on a static background. Rolls are often used for credits at the end of a show. Crawls display a running line of text, such as an announcement or warning, horizontally across the screen. Rolls and crawls are created entirely in CG and output in Sequencer. You can extend or shorten the effect duration using the Frames field, and add wait time with the Wait field. See "Rolls and Crawls" on page 48for details.

Reveals

Reveals display the text in a layout one line or character at a time, over top of a static background. Reveals are created entirely in CG and can be output in Sequencer. Unlike other events, the reveal duration is measured in characters or lines per second depending on whether the reveal is revealing characters or lines. In Sequencer, set the Frames value to zero for the fastest available reveal, or set the value to the number of characters or lines you want to display each second. You can also set wait time with the Wait field. See "Reveals" on page 49 for details.

Animations

Animations move text and graphics around in 3D space. Animations can be created in FX or imported from an external animation application. You can loop the event in Sequencer using the Frames field. You can also add wait time to the event. See "Use an Animation as an Event" on page 20 for details.

To loop an animation, click the button next to the Frames field on the Event Editor tab. Each time you click the button, the number of frames in the Frames field is increased by the total number of frames in the animation. For example, if your animation is 60 frames and you click the button four times, the value in the Frames field will be 240 (60 frames x 4), and your animation will

loop four times when you do a take. You can also type the total number of frames directly into the Frames field.

Alter Playback Speed During a Take

You can change the speed of a roll or a crawl while you are doing a take by pressing the PLUS and MINUS keys on the number pad. Pressing the PLUS key speeds up the playback; pressing the MINUS key slows the playback down.

Pause and Resume Effect Takes and Jobs

You can pause and resume rolls and crawls in mid-take by pressing SPACEBAR on your keyboard while the event is playing on your output monitor. This functionality is available in all CG/S modules when you take a roll or crawl.

Stop Takes and Jobs

You can stop any effect event mid-take. This is useful when you are preparing material for a live broadcast and you are experimenting with effect events. If, for example, you are attempting to achieve a certain speed or frame rate on a long roll, you can exit the roll after a few lines if you decide the speed is too slow or too fast. To exit a take, press the ESC (escape) key.

If you are running a job and you want to stop the entire job immediately, press ESC twice in quick succession. If you press ESC only once, CG/S stops playing the current event, waits until the next in point is reached, then continues playing the rest of the job.

You can also use the Stop button on the Run tab to stop a job. When you click on the Stop button, CG/S finishes playing the current event before stopping the playback.

You can stop a single take or an entire job in any CG/S module when you run effect events. You cannot resume a take or job once you stop it.

Stop, Resume, and Exit Takes

1 Create a roll and a crawl in CG and drag them in the Play List so that the roll is before the crawl in the job.

2 Click on the Sequencer button to switch to the Sequencer module.

3 Click on the first event. Hold down the SHIFT key and click on the second event.

4 Enter 200 in the Frames field on the Event Editor tab and press the TAB key on the main keyboard to set the value. You can also set the value by clicking away from the field.

5 Click on the Online Toggle button to put Sequencer in online mode, then switch to the Run tab.

6 Press the Take button to do a take of the roll.

7 Press the ESC key on the keyboard to exit the roll.

8 Click on the Run Job button to run the sequence from the beginning.

9 Press the SPACEBAR on the keyboard to pause the roll.

10 Press the SPACEBAR again to resume the roll.

11 Press the ESC key on the keyboard to exit the roll. This time, Sequencer waits until the out point for the roll is reached, then runs the crawl. When you are running a job, the ESC key affects only the current event. To stop the entire job, you need to press the ESC key twice in quick succession.

12 Run the job again, this time clicking on the Stop button to stop the job. CG/S finishes playing the current event before stopping playback.

Understanding Trigger Types

Trigger types control how you run events online, and are set on a group-by-group basis, not by event. Change the trigger type from the Trigger Type drop-down list on the Event Editor tab, or right-click on the current trigger type on the group header in the Event List.

Multiple Trigger Types

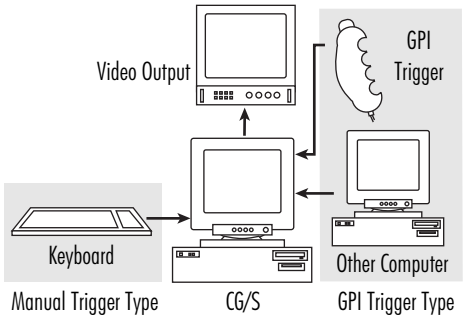
Since trigger types are set on a group basis, you have to create multiple groups when you need multiple trigger types. If you want a set of events to be automatically triggered as an opening sequence, then want manual control over a series of layouts for live presentation, you need two groups with two different trigger types. See "Managing and Editing the Event List" on page 182 for details on adding groups.

The following table describes the five trigger types available in Sequencer.

Trigger Type	Description
Manual	Waits for an operator to press SPACEBAR to trigger the next event. Wait durations and in and out points are ignored.
Timed	Starts the clock at 00:00:00 every time you run a sequence and uses the out point to trigger the next event.
GPI Trigger	Waits for an external GPI button press to display the next event. Wait durations and in and out points are ignored.
Time Code	Waits for the next in or out point to be reached using an external time code source.
PC Clock	Waits for the next in or out point to be reached on the PC system clock. This runs in 24 hour format.

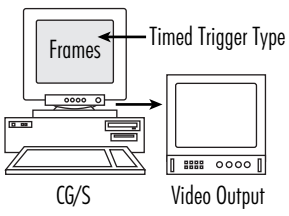
The Manual and GPI Trigger Types

Manual and GPI trigger types ignore the set Wait value because you control when the next event runs. These trigger types are considered manual since they both require some external input — a message from the keyboard or GPI trigger — before doing a take. See "Configuring GPI and PC Clock Trigger Types" on page 198 for details.



The Timed Type

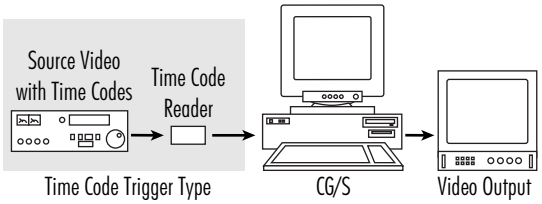
The Frames value determines how long Sequencer takes to play an event; the Wait value determines how long Sequencer leaves the image on screen before running the next event in the job. If there is no Wait interval, Sequencer displays the next event as soon as the current event has finished playing.



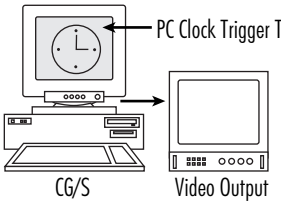
Sequencer uses the Wait time to load the next event into the Preview Channel. If the Wait interval is very short, Sequencer may not be able to load the next image in time. In this case, Sequencer waits until the image is loaded before play continues; it does not try to catch up by reducing the Wait interval for the following images. See "Creating Transition Events" on page 188 for details.

The Time Code and PC Clock Types

With Time Code or PC Clock timing, the Wait value is automatically calculated as the difference between the previous out point and next in point. This gives you quick feedback on display times without having to manually subtract the in point value from the out point value. See "Configuring for Time Code Use" on page 200 for details.



Sequencer maintains the in points. If you type in a new Wait value, Sequencer changes the out point to match the new duration; it does not change the in point. If you set an out point that overlaps with the next in point, the next in point is pushed back to match the set out point.



Create an Event List for a Talk Show

1 Create several events for a talk show environment: three for the opening credits, three to introduce each of the guests during the show; and three for the end credits.

2 Use the Play List to re-order the events in the order they will appear on the show, then switch to Sequencer.

3 Insert a group header for the events occurring during the show. Make sure this group also includes the first end credit. Create another group for the two remaining end credits. You should now have three groups.

4 Select the first group header. Change the group name to "Opening Credits" on the Event Editor tab. Leave the trigger set to the default Timed type.

5 Select the group header for the last group. Change the group's name to "Final Credits" and leave the trigger set at the default.

6 Click on the group header for the events that appear during the show. Change the trigger type to Manual for this group and change the name to "Talk Show Guests".

7 Use the Frames and Wait time fields on the Event Editor tab to change the event duration for each event in the Event List.

8 Switch to online mode and run the job. When CG/S reaches the "Talk Show Guests" group, it will wait for you to press SPACEBAR before running each event. Once you trigger the first end credit event (the last event in the "Talk Show Guests" group), the "Final Credits" group will be triggered automatically.

Configuring GPI and PC Clock Trigger Types

You can use GPI triggers in numerous situations, like on the evening news when weather reporters need to trigger their own events live. The GPI trigger setup allows you to remotely trigger event takes.

PC Clock triggers are used in situations where someone sets up the Event List in advance and lets it run automatically, such as on an automated information channel where events are sent to video at regular intervals and can be created days in advance. In this situation, there is little need for an operator to monitor the output.

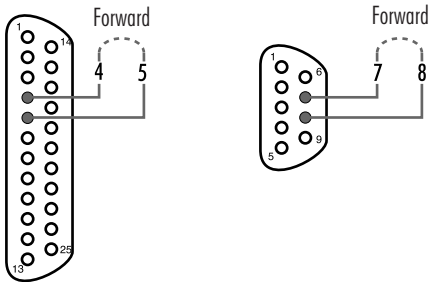
How GPI Triggers Work

You can trigger movement through an Event List with a GPI trigger connected to a serial port on your system. The GPI takes the voltage from a serial port pin to close a switch and complete the circuit, triggering the event.

To successfully use a GPI trigger with CG/S, you need to use a properly wired trigger device and you need to make changes to Inscribe.ini.

Wiring a GPI Trigger

The diagram below shows the pin closures for 25-pin and 9-pin serial port connectors. Reverse movement is not supported.



INI File Changes for GPI Triggers

In addition to hooking up a properly wired trigger, you must also configure CG/S to look for the GPI trigger. CG/S looks for the GpiPort entry in the [Trigger] section of the Inscribe.ini file for GPI information. You may have to create the section at the end of the file.

```
[Trigger]
GpiPort=COM1
```

If you hook the GPI trigger into another port, change COM1 to COM2, COM3, or COM4.

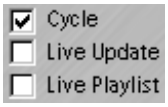
When you add this item to Inscribe.ini, make sure Trigger is enclosed by square brackets and do not put any spaces in the GpiPort=COM1 entry.

Use the PC Clock to Trigger Events

To set up a group for the PC Clock trigger type, you need to define in and out points for each event on the Event Editor tab. The in points that you set are the actual times that you want your events to run at; when you run the job, each event is triggered when the in point matches up with the time on your 24-hour computer clock.

When you set an in point, CG/S automatically calculates the out point. You can change the duration and wait interval between events with the Frames and Wait fields on the Event Editor tab.

If you want a job to repeat every 24 hours, select the Cycle checkbox on the Run tab. Once you run the job, CG/S will run the job at the same time every day.



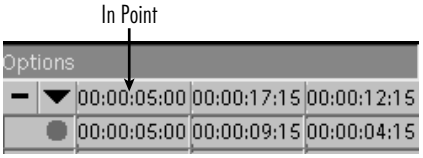
Use a GPI Trigger to Trigger Events

To complete this procedure, you must have a GPI trigger.

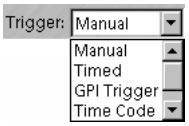
1 Create a series of events in CG for a news cast weather segment.

2 Create a new group for the new events if they are part of a bigger sequence.

3 Click on the new group header.



4 Select GPI Trigger from the Trigger drop-down list.



5 Click on the Online Toggle button to set CG/S to online mode.

6 Click on the Preview button to cue up the first GPI trigger event.

7 Press the forward trigger button on the GPI trigger when you are ready to perform the first take.

8 Repeat step 7 for each item in the group.

Configuring for Time Code Use

Using time codes with CG/S allows you to automate event sequences. It also allows you unequaled titling precision for subtitling, editing, and post production jobs. Time codes can be used for any job including creating pre-recorded news items, TV commercials, subtitles, and layouts for automated information channels.

There are five steps involved in using time codes successfully with CG/S:

1. Set up the time code reader.
2. Set up the time code source.
3. Configure CG/S to read time codes.
4. Set in and out points using the time code source.
5. Run the job.

Set Up a Time Code Reader

1. Attach your time code reader to a serial (COM) port on the CG/S computer.
2. If necessary, use the dip switches on the time code box to configure it for your system: time code type (LTC or VITC), baud rate, frame rate, and so on. Check the time code reader documentation for these values.

Set Up a Time Code Source

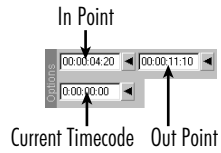
1. Connect your time code source to the time code reader.
2. Turn on the time code source.

Configure CG/S

1. Run Timecode.exe from the CG/S folder.
2. Select the options that match your system configuration. This program updates Inscribe.ini with all the values required for time code access.
3. Start CG/S and click on the Online Toggle button to put CG/S in online mode. CG/S must be in online mode to read time codes.

Set In and Out Points

1. Switch to Sequencer. Make sure CG/S is in online mode.
2. Click on the Current Timecode button to start reading the time codes. If you do not see time codes, see "Troubleshooting Tips" on page 210.



3. From the Trigger Type drop-down list in the group header, select Time Code.
4. Set in and out points for the events in your Event List. See "Set Times Using a Time Code Source" below for details.

Run the Job

The only thing you have to remember about running the Event List with time codes is to reset and run the time code source. CG/S waits for the time codes before it does anything. If you start the job and are unable to run the time code source for any reason, press the ESC key on the keyboard to stop the job. If the time codes are running, click on the Stop button to stop the job.

1. Reset the time code source before you attempt to run the Event List.
2. Click on the Run Job button.
3. Start the time code source.

Supported Time Code Readers

CG/S supports the following time code readers:

- Adrienne Electronics - AEC-Box 20
- BCD Associates - TC100
- Telcom Research - TC-102 and Easy Reader II
- Skotel Corporation - Little Red

Support for other time code readers may be available. Contact Inscriber Technical Support for more information. See page XX for details.

Timecode.exe

Timecode.exe is a program provided with CG/S that makes all the changes needed to Inscribe.ini that are required for time code access. Depending on the time code reader you choose, you may be asked for the following information:

- COM port (COM1, COM2, COM3, or COM4)
- Input type (LTC or VITC)
- Frame rate (25 or 30)
- Baud rate (usually 19200 or 38400)
- Broadcast mode (ASCII or Binary)

For each device, only appropriate choices are supplied. Not all devices require all this information.

If you change your setup, run Timecode.exe again and fill in the new values to properly update the Inscribe.ini file.

Set Times Using a Time Code Source

1 Click on the Sequencer button to switch to Sequencer.

2 Click on the Online Toggle button to go online. CG/S must be in online mode to read time codes.

3 Prepare and run your time code source.

4 Click on the group header and select Time Code from the Trigger drop-down list on the Event Editor tab.

5 Click on the Current Timecode button on the Event Editor tab so that the arrow turns yellow. This enables you to view the time codes in CG/S.

6 Click on the in point button on the Event Editor tab to set the in point for the first event.

7 Click on the out point button on the Event Editor to set the out point for the first event. Sequencer inserts the in point for the next event using the out point for the current event.

8 Click on the next event.

9 Click on the out point button on the Event Editor to set the out point for the event.

10 Repeat steps 8 and 9 for the remaining events in the list.

11 Rewind or reset your time code source to prepare for playback.

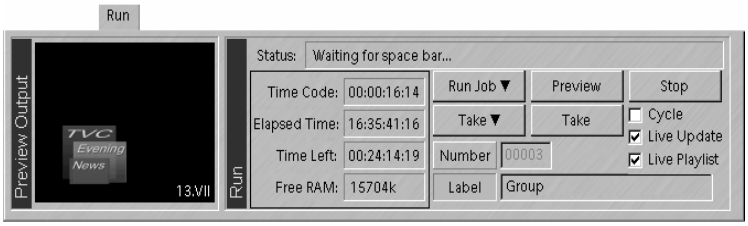
12 Switch to the Run tab.

13 Click on the first event in the Event List.

14 Click on Run Job to run the event sequence.

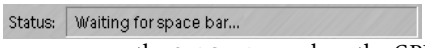
Using the Run Tab

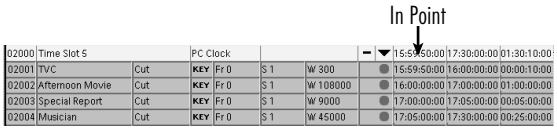
The Run tab is only available when you are in online mode. It is a useful tool for controlling the take details of your Event List. The following topics outline some of the more advanced features on the Run tab.



Run a Sequence

To run an entire Event List, switch to online mode, select the first image in the Event List and click on the Run Job button on the Run tab. Sequencer loads the first event into the Preview Channel. What happens next depends on the trigger type.

Trigger Type	Action
Manual or GPI	Check the Status bar at the top of the Run tab for "Waiting for space bar..."  When it appears, press the SPACEBAR or close the GPI trigger to display the first event and load the next one.
Timed	The first event appears immediately. Each event in the Event List appears after the event duration and wait time of the previous event have elapsed.
Time Code or PC Clock	The first event appears at the first in point and the rest of the events appear at the appropriate trigger points.



If your Event List has multiple groups with different trigger types, the action will change to match the group trigger type.

Select Events by Number and Label

When you click on the Number button, Sequencer activates the Number field, enabling you to reference the events by their event number. By default, these numbers appear in the bottom right corner of the event thumbnails in the Play List as well as in the first column of the Event List. Type an event number into the Number field to select an event, then press the MINUS key on the number pad to send the event to the Preview Channel, or the ENTER key on the number pad to take the event.

If you prefer to access the events by name, click on the Label button to activate the Label field. You can then select the event you want to display by entering its name. Sequencer selects the event as soon as it can be uniquely identified by what you type. Use the MINUS key on the number pad to send the selected event to the Preview Channel. Use the ENTER key on the number pad or the Take button on the Run tab to take the event.

Time Code Field

The Time Code field on the Run tab displays the current time code if your system is configured to use an external time code reader. If the current group in the Event List is configured for a PC Clock trigger, the Time Code field displays the current time from the PC clock. Otherwise, CG/S simulates a time code that displays how long the Run tab has been active. The value in this field is important only if you are relying on an external time code or the PC clock to run events.

Run Tab Checkboxes

Cycle Checkbox

Enabling the Cycle option forces Sequencer to continuously replay the job from the beginning each time it reaches the end, until you stop the job. If this option is not enabled, Sequencer runs through the Event List only once when you run the job. If you are using the PC Clock trigger type, Cycle runs the job every 24 hours.

Live Update Checkbox

Enabling the Live Update option causes Sequencer to highlight each event in the Event List as it is being output to video. If this option is not enabled, the Event List is static as the job is being run. This option is enabled by default.

Live Playlist Checkbox

Enabling the Live Playlist option causes Sequencer to highlight each event in the Play List as it is being output to video. If this option is not enabled, the Play List is static as the job is being run. This option is enabled by default.

Use the Run Tab

1 Create a Play List that uses the Timed trigger type and switch to Sequencer.

2 Click on the Online Toggle button to go online.

3 Click on the Number button on the Rub tab and type an event number. That event is automatically highlighted in the Event List.

4 Press ENTER. Sequencer does a take of the event.

5 Click on the Label button and type an event name into the field to select that event, then click on the Run Job button to run the job starting from the selected event.

6 On the Run tab, click in the Cycle checkbox to turn Event List cycling on, and click on the Run Job button. Sequencer replays the Event List over and over until you press ESC or click on the Stop button.

7 Run the job and watch the Event and Play Lists. Sequencer highlights each event in the Event List as it is output to video, and outlines each event in the Play List with a colored box.

8 Click on the Live Update checkbox to disable live Event List updates, and run the job again. The Event List no longer highlights each event as it is output to video.

9 Click on the Live Playlist checkbox to disable live Play List updates, and run the job. The Play List items are no longer highlighted as they are output to video.

Render Location and Rendered Images

The render location describes where the final events are rendered when you go online. You have three choices: local disk, local RAM, or remote. CG/S renders the events out as bitmaps so the frame buffer can display them online.

Rendered Images

You control whether the images are rendered to disk or RAM before Sequencer runs. Pre-rendered images are displayed much faster than images that must be read from a remote network drive, but every rendered image requires 2Kb to 1.5Mb of local disk drive space or RAM. If image retrieval time is not critical, you may prefer to leave the files on the remote disk until they are needed.

You can set the location for each image in the Event List. The location options are found on the Event Editor tab.

Option	Render Location
Local RAM	The image is rendered to a file on the frame buffer or in local RAM. When the local RAM is full, the image is rendered to a file saved on the local hard drive.
Local Disk	The image is rendered to a file on the local hard drive. Image display latency depends on local drive access speed and image size.
Remote Location	The image is rendered when it is needed by Sequencer. It is then rendered directly onto the frame buffer, if possible. Image display latency depends on network or CD-ROM access time and image size.

Risks and Benefits of Remote Rendering

Remote Location rendering means that the image is not rendered until you try to setup or run it. If logos, textures, background images, or fonts are not available at that point, the rendering process may fail or give unexpected results. Rolls, crawls, and animations cannot be rendered remotely. The advantage of operating in this manner is that you do not need extra hard drive space to hold rendered images during a run.

Display Latency

The display latency for images read from disk or from a remote location is composed of three factors: the time to read the image file from disk, the time to decompress it, and the time to transfer it to the frame buffer card. This varies greatly from system to system and from time to time, based on network activity levels. Images stored in compressed format actually load faster than uncompressed images because the decompression time is shorter than the time required to send the extra data across the network.

The primary delay in displaying images from RAM is the time required to send the raw data to the frame buffer card.

Location Symbols

The following table contains all the symbols used to identify the event location in the Event List.

Symbol	Description
	• Sequencer renders the event to RAM when you go online
	• Sequencer renders the event to a local hard drive when you go online
	• when offline, Sequencer attempts to render the event to the frame buffer when the take occurs • when online, the event's background does not need to be accessed from disk
	• (red) Sequencer rendered the event to RAM
	• (blue) RAM was full and Sequencer rendered the event to disk
	• (yellow) Sequencer rendered the event to VRAM or XMS memory on the frame buffer
	• (blue) Sequencer rendered the event to disk
	• (black) Sequencer loads the event's disk-based background at take time

Experiment with Location Options

1 Switch to CG and create a layout with a single character the size of the screen.

2 Using the Play List, copy the event nine times.

3 Apply a unique color to the character in each separate event.

4 Click on the Sequencer button to switch to Sequencer.

5 Select all the events in the Event List and click on the Local RAM button on the Event Editor tab. Sequencer attempts to render all events to local RAM once you go online.

6 Click on the Online Toggle button to go online. The color of the render location icon tells you where the events are rendered.

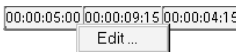
7 Click on the Cycle checkbox on the Run tab, then click on the Run Job button and watch the online output until you have a feel for the speed of the takes.

8 Click on the Stop button to stop the job, then click on the Online Toggle button to go offline.

9 Select all the events and click on the Remote button.

10 Follow steps 6 to 8 to render the files to the new location and see the difference in speed between the location options. In most cases, you should notice that Remote is slightly slower than Local RAM.

Trim Editor

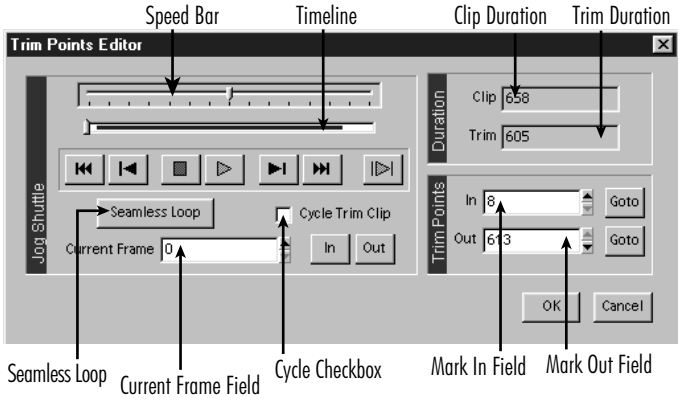


The Trim Editor allows you to crop your video clips by setting Mark In and Mark Out Points at specific frames. Sequencer only runs the portion of the clip that falls between these Trim points. To trim a video clip in Sequencer, add the file to the Event List, right-click on an event in or out point and click on Edit. This action opens the Trim Points Editor. Trimming a clip does not erase any part of the file. If you trim a clip too short, you can always lengthen it by resetting the Mark In/Mark Out Points.

Trim a Clip

Trim a clip in the Trim Editor by selecting the frames you want to set as the Mark In/Mark Out Points. To set the frame for the Mark In Point, enter the frame number in the Current Frame field on the Trim Editor, then click on the In button. To set the frame for the Mark Out Point, enter the frame number in the Current Frame field, and click on the Out button.

When you trim a clip, you are only changing the way CG/S sees the clip; the actual clip file remains unchanged, so you can always go back and lengthen the clip later. If you trim a clip in Sequencer, you have to re-trim the clip each time you add it to an Event List.



The following list describes the items and functions found on the Trim Editor.

Speed Bar

- Controls video playback speed during preview.
- Begins playback automatically when you move the slider to the left or right. Clips play forward when you move the slider to the right, and backward when you move it to the left.

Timeline

- Gives you a visual representation of your clip.
- Timeline length represents entire clip length.
- Shows the segment of the clip between Mark In/ Mark Out Points in blue.

Clip Duration

- Displays the total frames of the video clip.

Trim Duration

- Displays the number of frames between the Mark In/Mark Out Points.

Cycle Checkbox

- Select Cycle Clip to play your clip on a continuous loop during preview.

Seamless Loop

- Loops the preview of the trimmed clip.

Current Frame Field

- Displays the number of the frame currently displayed on your video monitor.
- Use the Up/Down arrows beside the field to change the current frame displayed on your monitor.

Mark In Field

- Displays the frame number of the Mark In Point.

Mark Out Field

- Displays the frame number of the Mark Out Point.

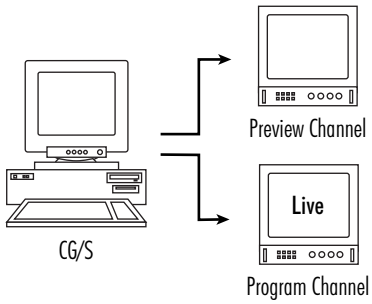
Button	Function
	Jumps to the first frame in the clip.
	Moves the clip back one frame.
	Stops clip playback.
	Plays the clip, starting from the current frame.
	Moves the clip forward one frame.
	Jumps forward to the last frame in the clip.
	Plays only that section of the clip between the Mark In/Mark Out Points.
	Sets the Mark In Point at the current frame.
	Sets the Mark Out Point at the current frame.
	Displays the frame in the Mark In/Mark Out field on the video monitor.

Trim a Video Clip

1. Add a video clip to the Event List in Sequencer.
2. Right-click on one of the clip's timing fields in the event line and select Edit to launch the Trim Editor. Note the number of frames in the Clip Duration and Trim Duration fields.
3. Move the Speed Bar slider slightly to the right to preview your clip.
4. Enter 3 in the Mark In field to set frame 3 as the Mark In Point for your clip. Click on the Goto button to display the new Mark In Point on your output monitor.
5. Enter 100 in the Mark Out field to set frame 100 as the Mark Out Point for your clip. The value in the Trim Duration field changes to reflect the number of frames between the Mark In and Mark Out Points, but the value in the Clip Duration field does not change. The blue segment on the Timeline is also shorter.
6. Jump to the first frame in your clip.
7. Play the clip from the current frame.
8. Stop the clip playback.
9. Play the section of the clip set between the Mark In and Mark Out Points.
10. Use the Up/Down arrow keys beside the Current Frame field to select different frames in your clip.
11. Enter 9 in the Current Frame field and click on the Out button. This resets frame 9 as the Mark Out Point.
12. Click on OK to apply your trim edits and exit the Editor.

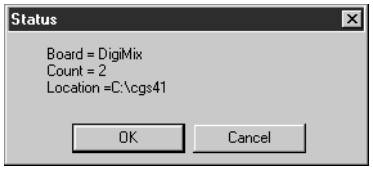
Setting Up Channels and Channel Ripples

You can configure CG/S to run on one, two, or three output channels. In an online environment, you usually have at least one Program Channel and one Preview Channel. This setup allows you to preview events before going live, giving you one final chance to catch any mistakes in the images and text. See "Using the Program/Preview Palette" on page 14 for details on using program and preview channels.



Setup for Multiple Channels

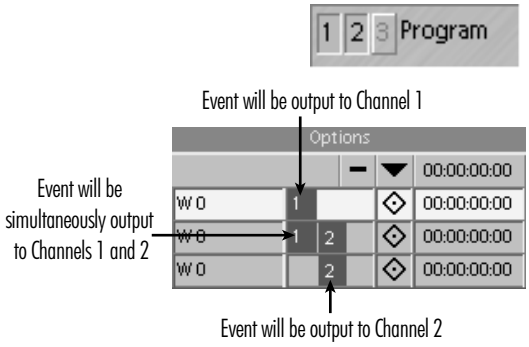
In order to run CG/S with multiple channels, you must have more than one frame buffer installed on your computer.



Once you have installed additional frame buffers, navigate to the \CGS41\Utilities folder on your computer and run Multiple.exe to configure CG/S for additional channels. As the setup program runs, you will be asked where CG/S is saved on your computer, how many frame buffers you have installed, and whether you want your system configured for Program/Preview Channels or for Multiple Channels. The program will then open a Status dialog asking you to confirm this information before configuring CG/S the way you want it.

Select a Channel

In Sequencer, click on the Program 1, 2, or 3 button on the Event Editor tab to specify which channel you want events sent to video on. The 1, 2, or 3 icon in the event line tells you which channel each event is being output to. You can send different events to different channels, or send all the events in a job to the same channel. You can also send events to more than one channel at a time. If you select more than one channel for an event, the event will be output to all selected channels simultaneously.



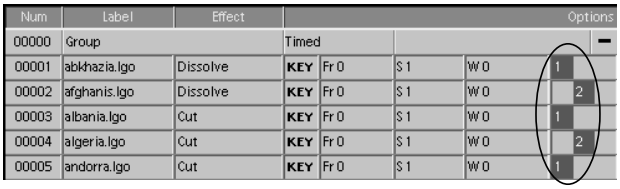
In other modules, select the output channel from the Program/Preview palette. See "Using the Program/Preview Palette" on page 14 for details.

What is Channel Ripple?

Channel ripple allows you to send an Event List to a multiple frame buffer system, cycling through each frame buffer as the events are sent to video. For example, in a three frame buffer system, the first frame buffer takes the first event, the second frame buffer takes the second event, the third frame buffer takes the third event, the first frame buffer takes the fourth event, and so on.

Applying Channel Ripples

Sequencer includes options to automatically apply multiple-board ripples within an Event List. This feature is particularly useful if you have set up a ripple effect and then need to edit the event sequence. Add all the events you want to the Event List, select the items you want to ripple, then choose a ripple effect from the Edit menu: 1-2 Channel Ripple, 2-1 Channel Ripple, 1-2-3 Channel Ripple, or 3-2-1 Channel Ripple. Sequencer reassigns the board assignments for the selected items so that they match the sequence you select.


Num Label Effect Options
00000 Group Timed
00001 abkhazia.lgo Dissolve KEY Fr 0 S 1 W 0 1
00002 afghanis.lgo Dissolve KEY Fr 0 S 1 W 0 2
00003 albania.lgo Cut KEY Fr 0 S 1 W 0 1
00004 algeria.lgo Cut KEY Fr 0 S 1 W 0 2
00005 andorra.lgo Cut KEY Fr 0 S 1 W 0 1

Set Ripples for Multiple Boards

1 Create a Play List with at least five events.

2 Click on the Sequencer button on the CG/S toolbar to switch to the Sequencer module.

3 Select all the events in the Event List.

4 Select Edit→1-2 Channel Ripple for a two board setup or Edit→1-2-3 Channel Ripple for a three board setup. Notice how the icons representing event output channels are staggered in a ripple pattern.

5 For two-board setup, select events 3, 4, and 5 in your Event List. For three-board setup, select events 3 and 4 in your Event List.

6 Select Playlist→Cut Event to delete these events from the Event List. The events in the Event List are no longer properly staggered.

7 Select all the events in the Event List.

8 Select Edit→1-2 Channel Ripple for a two board setup or Edit→1-2-3 Channel Ripple for a three board setup. The icons representing event output channels are quickly re-ordered in a ripple pattern.

9 Select Edit→2-1 Channel Ripple or Edit→3-2-1 Channel Ripple to reverse the stagger order.

Understanding Time Code Details

The following topic outlines some of the finer details of working with time codes, such as clearing to video between events, setting time code offset, and using quick keys. Some troubleshooting tips are also given.

Clear to Video

If you do not want to have consecutive titles, there are two ways to clear the screen to video: insert a 100% alpha event in the Event List or define a cut transition with a set duration and a wait time. Cuts occur instantly, so the Frames and Wait values are not normally used. When you set the Frames value on a Cut transition to any number other than 0, Sequencer treats the command as a special case and displays the event for the set number of frames. It then clears the display to video for the duration of the wait time. See "Understanding Event Duration" on page 192 for details on cut transitions and duration.

Quick Keys

Sequencer provides handy quick keys for setting in and out points. These quick keys are especially useful when setting many in and out points consecutively.

- CTRL+Q sets in points
- CTRL+W sets out points

Time Code Offset

Sequencer lets you offset all the events in a Time Code group. You can use this feature anytime the time code source is globally affected. For example, if your signal passes through a lot of equipment to get to the time code reader, you may see a slight delay between the system output and the time code input.

To offset the time code, select Edit→Set Timecode Offset, and enter the time to offset the signal in the TimeCode Offset dialog. By default, the offset is positive. To reverse the offset, click on the Forward/Reverse cycle button until it says Reverse.

Ittest.exe

The Ittest.exe program provided with CG/S lets you use the Inscriber.ini settings to verify whether CG/S should be seeing the time codes.

If you do not see time code input in Ittest.exe, check your hardware and MCI setup. If the test programs supplied with your hardware work, but you do not see input in Ittest.exe or CG/S, there may be a problem with the MCI control strings in Inscribe.ini. Re-check the strings with the documentation supplied by your hardware manufacturer.

Troubleshooting Tips

If the time code input in the Current Time Code field is incorrect, consider:

1. Is the trigger type set to Timecode?
2. Is your preference standard set correctly (NTSC or PAL)?

If there is no time code input in the Current Time Code field, ask yourself the following questions:

1. Is the time code source attached to a working COM port?
2. Is the time code source connected properly to that COM port?
3. Is the time code source powered up?
4. Are the dip switches for the baud rate and other parameters set correctly?
5. Is CG/S in online mode?

To help you check these values, try running Ittest.exe, included with CG/S. This program uses the initialization data from Inscribe.ini to try to retrieve time codes.

Ittest.exe provides a multiple line report, including a check on each line of the Inscribe.ini file. In particular, check the following lines.

- Time code type (LTC or VITC)
- COM port (make sure this matches)
- COM port settings
- Was the device found?

If line 19 reads "Fail to verify device", either the device is not turned on or it is not configured properly. Check the device documentation to make sure that the dip switch settings are set properly and try again.

If line 19 reads "Cannot open Port Com X", the test program could not locate the COM port identified in line 10. Check the following.

- Is the COM port properly configured?
  Line 11 lists the COM port settings selected for that port (baud rate, parity, data bits and stop bits). Open the Ports Control Panel in the Control Panels folder on the Start menu and make sure that the settings match.
- Is the port physically connected to its controller?
  Are the connections tight? Is the ribbon cracked? Are all nine pins present and tight? These cables are frequently loose or broken.
- Is the COM port properly installed?
  If you have a copy, run Msd.exe (Microsoft Diagnostics program). This program allows you to view current port configurations, verify if a port is present and working properly, or install a new port with the correct settings.

Edit and Offset In and Out Points Using Time Codes

1 Click on the Online Toggle button to go online. CG/S must be in online mode to read time codes.

2 Run your time code source to edit predefined out points.

3 Select the first event to edit.

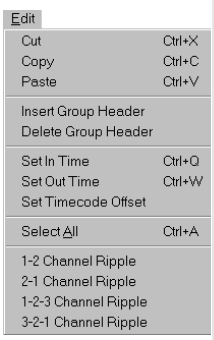
4 Hold down CTRL and press W to edit the out point of the selected event. Sequencer automatically switches to the next event and updates the in point to match the new value. You can continue to edit out points using the quick keys.

5 Stop your time code source.

6 Select an event to edit manually.

7 Enter a new in point value for the selected event in the Event Editor tab. Sequencer automatically updates the out point for the previous event to match the new value.

8 Select Edit→Set Timecode Offset to set a global time code offset value.



9 Enter the time code offset in the Timecode Offset field and click on the OK button.

Sequencer Tips and Tricks

There are a number of tricks you can use in CG/S to increase your productivity. You can specify where you want your online files to be stored, you can renumber the rendered filenames in the Play List, you can use overlays to add elegance to your online images, and you can import animations created externally into CG/S and take them to video.

Online Folder Extension

The rendered files for a job, also known as online files, are always stored in a separate folder. All folders containing online files for CG/S have the "OnlineFiles" extension. For example, the online folder for a job file named "RocknStuff.ins" is called "RocknStuff.OnlineFiles".

The file extension makes it easier to locate and identify online folders. This is important for two reasons. First, you should always know where your files are located. Second, if you are running low on hard disk or storage space, you can easily search your drives for online folders you no longer need and delete them.

By default, the online folder is in the same folder as the job file. If you want to put all your rendered files in one location, such as a network drive or a very fast SCSI drive, change the Online Output Directory on the Sequencer tab in the Preferences dialog. See "Setting Sequencer Preferences" on page 214 for details.

Renumber All Rendered Filenames

When you edit an event sequence using the Play List, CG/S does not automatically renumber the rendered filenames. For example, if you move event 1.vii to before event 5.vii, your event rendered filenames are ordered as follows: 2.vii, 3.vii, 4.vii, 1.vii, and 5.vii. To renumber this event sequence, select Playlist→Renumber All Render File Names. CG/S renames the events so that the numbers are consecutive, that is, 1.vii, 2.vii, 3.vii, 4.vii, and 5.vii.

This option is strictly a matter of personal preference. Renumbering your rendered filenames does not affect or improve system performance. However, renumbering the rendered filenames deletes all online files and if you are online, it takes you offline.

Rename Rendered Filenames

You may find situations where you want to share specific rendered files with other Inscriber users, or where you need to reuse specific files. Renaming the rendered file is an easy way to distinguish a file from dozens or hundreds of other numbered files. To open the Change Render Name dialog, select Playlist→Change Render File Name, or press CTRL + J.

Import Animations

You can import animations created externally. You can create an animation in any multimedia or 3D package and send it to video through CG/S. This means you can add many different looks to your video output. You can create cartoons or real 3D animations complete with lighting effects and alpha.

There are four steps to using an external animation in CG/S: create the animation, export the individual animation frames, create a .via file using Inscriber Via Builder, and import the .via file into CG/S. The animation you create is entirely up to you—it can be as simple or complex as you want it to be.

When exporting, make sure the file format you export to is supported by Via Builder. Sequential .tga files are the recommended file format. Depending on the

software package you use to create the animation, you can export the frames as full 32-bit files complete with alpha. CG/S recognizes and uses any alpha in your .tga output files.

To create a .via file, use the ViaBuilder program that comes with CG/S. For details on using ViaBuilder consult the ViaBuilder online help. Once you have the file, start CG/S and switch to Sequencer. Select File→Import Animation to import the newly created .via file.

Once you import your animation, CG/S treats it as a regular event in the Event List. You can move, delete, copy, cut, paste and run the animation online. There is one limitation to this process: you cannot change the duration of the animation in CG/S. If you want to slow the animation down or speed it up, you need to go back into the application where you created the original animation and adjust the timing there. When you have adjusted the timing to your satisfaction, you need to export the frames and create a new file to import into CG/S.

Log Online Activity

To record the content of your event sequences, export the Event List as a text file. From the File menu select Export→Export Sequence Text File. Name and save your file in the Save As dialog. The contents of the Event List text file include the date, the source file, and all the information found on the event line.

To monitor and log your online activity, add the following entry on Inscribe.ini [Preferences] section.

```
LogFiles=TRUE
```

Change the Online Directory

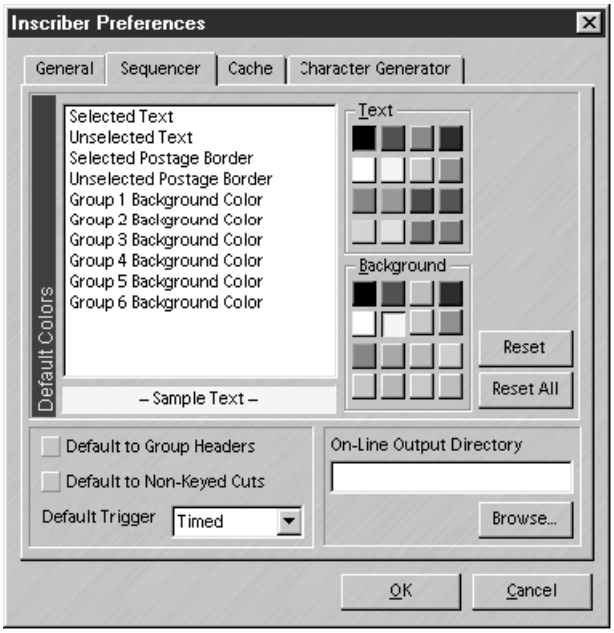
1. Create a Play List.
2. Save the Play List in your CG/S folder as Test.ins.
3. Click on the Sequencer button to switch to Sequencer.
4. Click on the Online Toggle button to set CG/S to online mode.

5. Minimize CG/S to view your desktop.
6. Double-click on the My Computer icon and navigate to the CG/S folder. Notice the TEST.OnlineFiles folder. This folder contains the online file you just generated.

7. Switch back to CG/S. Click on the Online Toggle button to switch to offline mode.
8. Select File→Preferences to edit the CG/S preferences.
9. Click on the Browse button on the Sequencer tab to select a new folder for the online files.
10. Navigate to the root of your current drive and click in the folder window on the Select Online Output Directory dialog.
11. Select New→Folder from the menu and change the name of the folder to your name.
12. Click on the new folder and click on the OK button to set the folder.
13. Click on the OK button in the Sequencer tab to make the change to CG/S's preferences.

Setting Sequencer Preferences

The Sequencer tab of the Preferences dialog lets you customize Sequencer's display and features. You can set or reset the display colors for the Event List and the Play List. You can also set defaults for the insertion of groups, non-keyed cuts, group trigger types, and the online files folder.



Change Display Colors

In the Preferences dialog, you can set the text and background display colors for objects in the Event List and Play List. You can use different colors for selected and unselected objects. The Selected Text and Unselected Text items refer to selected and unselected objects in the Event List. The Selected Postage Border and Unselected Postage Border list items refer to the selected and unselected events in the Play List.

Use the Text color swatches to select the colors for the Event List text. Use the Background color swatches to select the colors for all the backgrounds.

You can reset any or all of the colors to the CG/S default colors by clicking on the Reset or Reset All button.

Group Headers

When selected, the Default to Group Headers checkbox tells Sequencer to insert a group header for every new event or group of events added to the Event List. If this option is not selected, all the events are added to a single default group.

Groups help organize long event sequences into chunks that can be easily displayed. They are also used for Event Lists that use multiple trigger types. See "Understanding Trigger Types" on page 196 for details.

Non-Keyed Cuts

The Default to Non-Keyed Cuts checkbox determines the keying types for cut transitions.

Some frame buffers cannot do a full-screen 32-bit cut in PAL due to technical limitations. If you select this option, cuts are set to a 24-bit take by default. If this option is not selected, cuts default to 32-bit cut for the center 512 scan lines followed by a wipe for the rest of the scan lines.

This setting can be changed for any transition in the Event List. See "Selecting a Transition Type and Direction" on page 190 for details.

Group Trigger Type

The Default Trigger drop-down list allows you to set the default trigger applied to new group headers. Select a trigger from the drop-down list to set the default.

You can change the trigger type for any group using the Event Editor tab in Sequencer. See "Understanding Trigger Types" on page 196 for details.

Online Output Directory

Use the Online Output Directory field to enter the folder for all rendered files. The rendered files for each job file are saved in a separate subdirectory within the Online Output Directory. If the .ins filename is "Trees," the rendered files are saved in "Trees.OnlineFiles."

If you leave this field blank, the rendered files are stored in a folder below the folder containing the .ins file.

Click on the Browse button to select a system folder. See "Render Location and Rendered Images" on page 204 for details on rendered files.

Change the Display Colors

1 Select File→Preferences to edit the CG/S preferences.

2 Choose Selected Text on the Sequencer tab to change the display colors for the selected object lines in the Event List.

3 Click on the white Text color swatch to select the new text color, then click on the dark gray Background color swatch to select the new background color. The new colors are displayed in the dialog.

4 Select Unselected Text from the list to change the display colors for the unselected object lines in the Event List.

5 Click on the black Text color swatch to select the new text color, then click on the white Background color swatch to select the new background color.

6 Select Selected Postage Border from the list to change the display colors for the selected event thumbnail in the Play List.

7 Click on the red Background color swatch to select the new outline color.

8 Select Unselected Text from the list and click on the Reset button to reset the Unselected Text colors.

9 To reset all the colors, click on the Reset All button.

10 Click on the OK button in the Sequencer tab to make the changes to CG/S's preferences.

Frame Grab

Frame Grab allows you to capture a single frame from an incoming video signal and save it as a still image. Frame Grab includes special tools to crop ragged edges from the grab, filters to apply to the grab, and a variety of methods to save the image as a bitmap file.

In this Section:

About Frame Grab 218
Cropping a Grab 218
Image Filters Described 220
Setting Up Frame Grab 222
Saving Grabs 223

Frame Grab — An Overview

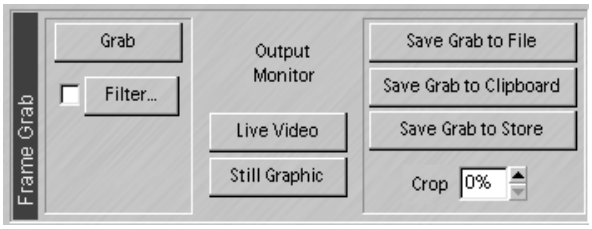
Frame Grab allows you to capture a single frame from an incoming video signal and save it as a still image. Frame Grab includes special tools to crop ragged edges from the grab, filters to apply to the grab, and a variety of methods to save the image as a bitmap file. Frame Grab is not available on all supported frame buffers.

Switch to Frame Grab

To switch to Frame Grab from other CG/S modules, click on the Frame Grab button located on the CG/S toolbar. If you prefer, you can select the module from the Tools menu, which is available in all CG/S modules.

Attributes

Frame Grab is a fairly simple module to use and understand. All the Frame Grab tools and options are located on the one tab and on the Frame Grab Edit menu.



Grab an Image

When you see the input image you want to save, click on the Grab button to capture the full frame. The image will freeze on your video monitor, and Frame Grab will copy the image to the Frame Grab window.

Filters

A frame is composed of two interlaced fields, separated by 1/50th or 1/60th of a second. Essentially, the input signal contains the even-numbered scan lines followed by the odd-numbered scan lines. If any object in the image moves during that fraction of a second, you will see flicker in the display of a frame grab using both frames.

Frame Grab allows you to use various filters to correct for flicker. There are also other filters that let you modify the image. You can switch back and forth between the filter displays until you save the image. See “Using the Image Filters” on page 220 for details.

Switch from Still to Live Video

If you want to go back to the live display and try again, click on the Live Video button. You can switch back and forth between the live input and the image you have grabbed by clicking on the Still Graphic and Live Video buttons. You may need to do this to compare your grab to the input signal when you are trying to decide whether the grab is okay or whether you need to change the filter options.

Crop an Image

Some frame buffers leave a ragged edge on the top and bottom of each image. It may look like the grab actually starts half way across a scan line. Normally, this rough area is well outside the safe title area, but if you need to, you can use the cropping features to cut off part of the image.

Frame Grab always centers crops. Adjust the area of the crop by changing the value in the Crop field on the Frame Grab tab. A white border in the Grab window marks

the crop boundary. When you save the image, Frame Grab only saves the image information inside the marker. Cropping the image will decrease the size of your image file.

Since you are cropping 4:3 or 16:9 images, depending on your video input, you can smoothly scale the images up to full screen again when you use them in Logo Compose. You may notice that the image quality is degraded if you enlarge the cropped image too much.

Cropping Advantages	Cropping Disadvantages
Eliminates the ragged edges seen on some frame grabs.	Scaling images back to full size may degrade image quality.
Only saves the relevant area of the image. Produces smaller images by eliminating unneeded image areas.	Cropped areas are permanently lost.

Grab an Image

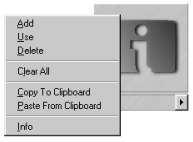
1 Click on the Frame Grab button to switch to Frame Grab.

2 Watch the video play on your screen and click on the Grab button to capture an image. The image is displayed in the Frame Grab window. Note that the video stops playing on screen after you perform a grab.

3 Click on the Live Video button to resume the video play.

4 Select the Grab button to capture another image.

5 Right-click on the Scrapbook palette and select Add from the pop-up menu. This image is now temporarily stored in the Scrapbook and is available to all of the CG/S modules.



6 Switch to Sequencer and select Use from the Scrapbook's right-click menu. The grab is added to the Event List and an image thumbnail appears in the Play List.

7 Set transition and duration information for the image, then switch back to Frame Grab.

8 Select the Live Video button to resume the video play.

9 Click on the Grab button to capture a new image.

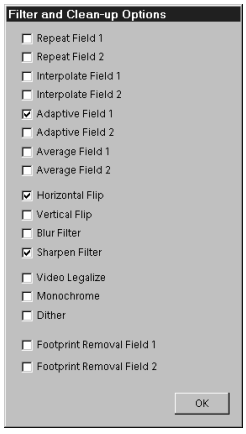
10 Click on the Save Grab to File button. Choose a file type, a location, and a name for the grab. Click on the Save button to save the image and close the dialog. Note that when you save a grab to file it is saved as a 24-bit image. This means that the original alpha information is lost.

Using the Image Filters

Video signals contain two interlaced fields slightly offset in time. Any grabbed frame flickers because of this offset. Decoded NTSC and PAL signals may have a certain amount of degradation or color distortions. Frame Grab offers different filter options to minimize flicker and clean-up any distortion.

Image Filters

The following topics list the available filter effects in Frame Grab.



Repeat Field 1
Duplicates the odd-numbered scan lines, replacing the even-numbered ones. The image will appear to shift down.

Repeat Field 2
Duplicates the even-numbered scan lines, replacing the odd-numbered ones. The image will appear to shift up.

The Repeat Field filters successfully remove field flicker without blurring the image. However, since they completely remove one of the fields, they tend to add visual steps in the image.

Interpolate Field 1
Computes new data for even-numbered scan lines from the scan lines directly above and below. The odd-numbered scan lines remain unchanged.

Interpolate Field 2
Computes new data for odd-numbered scan lines from the scan lines directly above and below. The even-numbered scan lines remain unchanged.

The Interpolate Field filters remove inter-field jitter but increase vertical image softness. These filters generally do not increase visual steps in the image.

Adaptive Field 1
Modifies the luminance values for each pixel on even-numbered scan lines based on the luminance values for the pixels directly above and below. The odd-numbered scan lines remain unchanged.

Adaptive Field 2
Modifies the luminance values for each pixel on odd-numbered scan lines based on the luminance values for the pixels directly above and below. The even-numbered scan lines remain unchanged.

The Adaptive Field filters remove inter-field jitter without increasing vertical image softness. These filters generally do not increase visual steps in the image. The Adaptive Field filters are recommended for general frame grab clean-up.

Average Field 1
Computes new data for even-numbered scan lines by averaging each one with the line directly above.

Average Field 2
Computes new data for odd-numbered scan lines by averaging each one with the line directly above.

The Average Field filters average the two fields to remove flicker. In averaging the fields these filters tend to blur motion and slightly soften the image vertically.

Horizontal Flip
Flips the image left to right.

Vertical Flip
Flips the image top to bottom.

Blur Filter
Mildly blurs the image with a 3x3 convolution filter.

Sharpen Filter
Mildly sharpens the image with a 3x3 convolution filter.

Video Legalize
Checks the image for color values that will result in out-of-range values after an encoding process. Illegal colors are corrected to legal colors with an algorithm that attempts to maintain luminance values.

Monochrome
Performs a luminance conversion, converting images to 8-bit grayscale.

Dither
Removes contouring in imported graphics with a generalized noise filter.

Footprint Removal Field 1
Applies the average field filter to the field 1, followed by an adaptive field filter to field 2.

Footprint Removal Field 2
Applies the average field filter to the field 2, followed by an adaptive field filter to field 1.

Use Filters

1 Click on the Frame Grab button to switch to Frame Grab.

2 Click on the Grab button to capture an image.

3 Click on the Filter button to open the Filter and Cleanup Options dialog.

4 Select the filters you want to apply to your grab by clicking on the appropriate checkboxes, and click on OK.

5 Click on the Filter checkbox to apply the selected filters. The selected filters are applied to the grab as soon as you select the Filter checkbox.

6 Experiment with the filters to see the kind of effects you can achieve with them. The Flip and Monochrome filters usually provide the most noticeable effects.

7 Click on Grab to capture a new image. When the Filter checkbox is selected the filters are automatically applied to the new grab.

Setting Up Frame Grab and Saving Files

Set Up

As long as your frame buffer is configured correctly, CG/S automatically does all the setup required for a frame grab as soon as you switch to the Frame Grab module. All you have to do is start the input feed. Frame Grab requires an encoder on the frame buffer board. It does not work on the VMAXX-10 board. On other systems, frame grabs are saved as 16- or 32-bit image files, but transparency is lost.

When you switch to Frame Grab, CG/S sets your frame buffer to video passthrough so that you can see the incoming signal on your video monitor. If you have trouble, check the following items.

Problem	Possible Solutions
No Input Signal	Check the cable connections and the setup options in your frame buffer configuration software. Some frame buffers fail to switch to video passthrough if you select the wrong input type in the configuration software.
Scrambled Signal	Check that the horizontal and vertical frame buffer resolutions match the input signal resolution. Check these values on the General Preferences tab.
No Sync	Check your sync input source and the sync options in the frame buffer configuration software.

Multiple Board Systems

When you have more than one frame buffer installed, you can perform a grab from any frame buffer board. Use the Program palette to select the board.

If you want to limit grab capability to one board only, edit Inscribe.ini and change the FrameGrabOnBoards entry in the [Configuration] section. By default, this entry is set to 0, which enables frame grabs from any board. If you want to limit grabs to one particular board, change this value to 1, 2, or 3 to match the board you want to grab from. For example, to limit grabs to board 2 set FrameGrabOn Boards to 2:

```
[Configuration]
FrameGrabOnBoards=2
```

Initialize Board

By default, Frame Grab does not initialize the current board to Live when you switch to the Frame Grab module. This means that the output on the channel is not disrupted until you click on the Live button.

For convenience, you can set up your system to automatically initialize the board to Live when you switch to Frame Grab. Change the FrameGrabInitLive value in Inscribe.ini to 1 instead of the default value of 0.

```
[Configuration]
FrameGrabInitLive=1
```

Save an Image

Once you have grabbed an image in Frame Grab, there are four ways to save it:

- Save the grabbed image to a file.
- Copy the grabbed image to the Clipboard for use with other applications.
- Put the grabbed image in the Scrapbook.

Save a Grab to a File

Click on the Save Grab to File button on the Frame Grab tab. Select a drive and folder for the image and a file type for the image file. Name the file and click on OK. The image can be saved as a 24-bit .bmp file or a 32-bit .vii or .tga file.

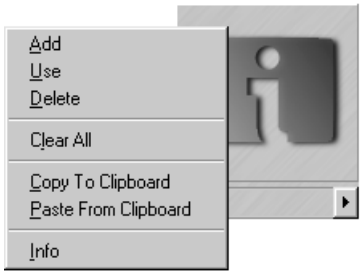
Most graphics applications can read .tga and .bmp image files. Other Inscriber programs can read .vii files.

Save a Grab to the Clipboard

To paste the grabbed image directly into another Windows application, click on the Save Grab to Clipboard button. When you switch to the other application you want to use, choose Paste from the application's Edit menu to insert the image.

Add a Grab to the Scrapbook

To temporarily put the image in the Scrapbook, right-click on the Scrapbook and select Add from the pop-up menu. Remember that the Scrapbook is a temporary file that is deleted when you close CG/S. Make sure you save any images that you want to keep permanently before closing CG/S.



Save a Frame Grab

1 Click on the Frame Grab button to switch to Frame Grab.

2 Click on the Grab button to capture an image.

3 Select the Live Video button to resume the video play.

4 Click on the Still Graphic button. This button displays the last captured image on the output monitor.

5 Right-click on the Scrapbook and select Add from the menu. The captured image now appears in the Scrapbook. To use the image from any other CG/S module, right-click on the Scrapbook and select Use from the menu.

6 Click on the Live Video button again.

7 Click on the Save Grab to File button, select a file location and set image options for the grab.

8 Minimize CG/S and click on the My Computer icon on your desktop. Navigate to the location of the image you just saved and double click on the file icon to view it.

9 Switch back to CG/S, grab another frame in Frame Grab, and click on the Save Grab to Clipboard button.

10 Switch to an image editor and select Paste from the Edit menu. Your frame grab is inserted into the image.

Logo Compose

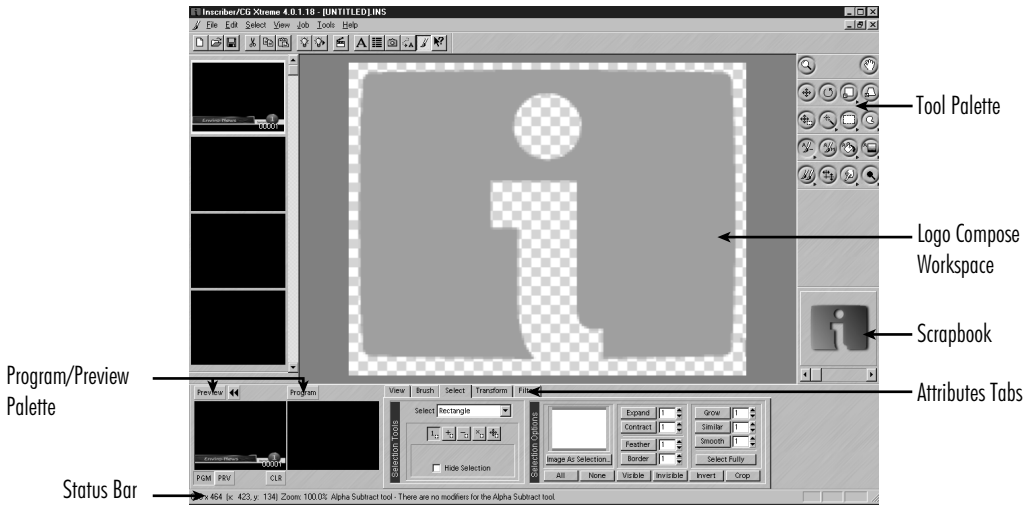
Logo Compose is a full featured image manipulation application that lets you edit, retouch, and add alpha to bitmap images and Logo Compose files. The sophisticated tools in Logo Compose make it easy to clean up logos and images. With a variety of filters, you can create effects quickly and easily. Logo Compose also makes it easy to create textures for use in CG.

In this Section:

Logo Compose Concepts. 226-229
Working with Files. 230-231
Tools and Brushes 232-235
Logos and Alpha 236-239
Selections and Transformations 240-249
Using the Image Editing Tools 250-253
Filters and Textures 254-257
Viewing your Image 258-259
Image Channels 260-261
Working with Video Images 262-267
Short Cut Keys. 268-269

Logo Compose — Interface Overview

Logo Compose is a full-featured, bitmap-based image manipulation application. It lets you add alpha to images, as well as create, edit, and retouch bitmap images and Logo Compose files. These images can be used as logos, backgrounds, and textures in CG. You can import files from other applications in many supported file formats including 32-bit formats containing alpha. You can use images from the Scrapbook in Logo Compose. Any image, layout, or frame from CG or Frame Grab can be edited as a bitmap in Logo Compose.



Switch to Logo Compose

To switch to the Logo Compose module from other CG/S modules, click on the Logo Compose button on the CG/S toolbar.

Logo Compose Workspace

The Logo Compose workspace is the size of the image you are working on. You cannot work outside the image boundary.

Use the alpha tools to manipulate image alpha, the selection tools to select the parts of the image to work on, the transformation tools to transform a selected area, or the image editing tools to edit the image. Logo Compose also offers a variety of filters.

Brush Preview Cursor

When you move your mouse into the Logo Compose workspace, the cursor switches to the Brush Preview cursor. This cursor lets you see the effects of the current brush settings before you make any changes to your image. The cursor shows several brush attributes, including Size, Angle, and Shape. See “Setting Brush Attributes” on page 234 for details.

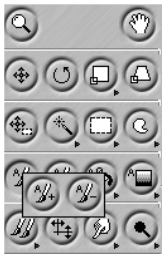
Status Bar

The Logo Compose status bar displays the image size, cursor coordinates, zoom level, and any modifiers for the current tool. You can view this information on various tabs, but the status bar provides a summary in one easy location.

720 x 486 (x: 209, y: 106) Zoom: 100.0% Alpha Subtract tool - There are no modifiers for the Alpha Subtract tool.

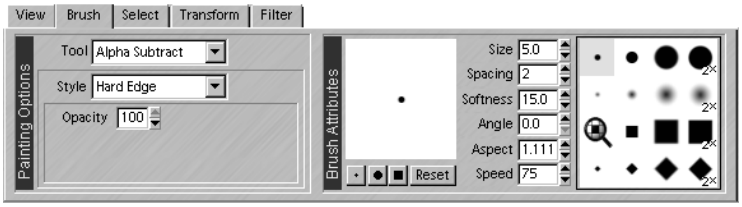
Tool Palette

The Logo Compose Tool palette contains all of the tools available in Logo Compose. The palette is visually divided into groups of similar tools: the general tools, selection tools, transformation tools, alpha tools, and image editing tools. Many tools share one Tool palette button. These additional tools are located on pop-up menus that appear when you click and hold the mouse over a tool button. See "Working with Tools" on page 232 for details.



Attributes Tabs

The Attributes tabs provide easy access to all of Logo Compose's options. The View tab contains view, zoom, and preference options. The Select tab contains all the selection tool options. The Transform tab contains all the options for the transformation tools. The Brush tab contains the options for all the alpha and image editing tools. The Filter tab contains all filter options.



Menus and the Right Click Menu

There are three menus unique to Logo Compose: the Edit, Select, and View menus. The File→Import/Export menu items are also specific to Logo Compose.

Logo Compose opens the right-click menu when you right-click anywhere in the workspace. This menu adds another way of accessing the tools on the Tool palette.

Modifiers, Short Cut Keys, and Cursors

There are many modifiers, short cut keys, and cursors for Logo Compose. Key shortcuts are listed next to the menu items in the Logo Compose menu bar. Tool modifiers for the current tool are listed on the status bar. See "Using Short Cut Keys" on page 268 for a list of short cut keys in Logo Compose.

Scrapbook

The Scrapbook lets you transport images between CG/S modules. You can add any Frame Grab, or CG image to the Scrapbook and work with it in Logo Compose, or transfer any Logo Compose image to any other module via the Scrapbook. See "Working with Files" on page 230 for details.

Logo Compose Concepts

In addition to alpha tools, Logo Compose provides image editing tools, transformation tools, and filters for fast editing of the images you need to get online, so you can use Logo Compose for more than just adding alpha to logos. You can also use Logo Compose to perform color correction, create textures for use in CG, and retouch images.

Clean Up Logos and Add Alpha

If you use logos frequently, cropping and removing image information from around logos or objects may be one of the most important reasons to use Logo Compose. This task is often called logo clean up. The sophisticated alpha tools in Logo Compose make cleaning up logos easy.

You can add alpha to small areas of your image or make whole areas of your image transparent. These images can then be saved as Inscriber .lgo format files and imported into CG as logos.

Logo Compose uses eight different tools for editing image alpha. These tools are the Alpha Add, Alpha Subtract, Alpha Memory, Alpha Fill, Alpha Tolerance Fill, Alpha Luminance Fill, Alpha Linear Gradient, Alpha Radial Gradient, and the Alpha Memory tools. See “Working with Alpha Tools and Logos” on page 236 for details.

Retouch Images

You can retouch images or remove unwanted objects or artifacts, such as telephone poles or scratches, from your images to make them more presentable on air. You can also selectively copy and offset areas using the Clone and Offset tools, and you can edit the luminance values of your image. You can also apply color correction filters to adjust the image color, contrast, or levels.

Logo Compose has eleven image editing tools: Clone, Clone Fill, Offset, Smear, Blur, Luminance Add, Luminance Subtract, Saturation Add, Saturation Subtract, Dodge, and Burn tools. See “Editing an Image” on page 250 for details.

Make Selections

The selection tools make it easy to edit parts of images. To edit a certain area of an image, simply make a selection around the area. You can also import and export selections for later use.

Logo Compose has nine selection tools: Wand, Luminance Wand, Brush Selection, Rectangular Selection, Elliptical Selection, Column Selection, Scan Line Selection, Lasso, and Linear Lasso tools. See “Understanding Selections” on page 240 for details.

Apply Transformations

You can apply transformations to an entire image or to selected areas of an image. Logo Compose has five transformation tools: the Move, Scale, Skew, Rotate, and Freeform tools. See "Understanding Channels in Logo Compose" on page 260 for details.

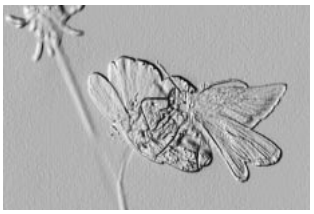
Create Textures and Patterns

Textures and patterns can accentuate text and graphics in CG and can also be used as backgrounds. You can use the image editing tools to create seamless textures for use in CG. See "Creating Textures" on page 256 for details.

Apply Filters and Create Effects

Logo Compose's image filters let you adjust image color and create a variety of effects. You can clean up images grabbed from video, colorize black and white photographs, or legalize image colors for display to video.

You can apply filters to an entire image, to selected areas of an image, to imported files, or images transferred into Logo Compose from the Scrapbook. See "Applying Filters" on page 254 for more details.



Experiment with Logo Compose

1. Click on the Logo Compose button to switch to Logo Compose.

2. Select File→Import/Export→Import Image, and select an image in the Open dialog.
3. Switch to the Brush tab, select a square brush from the brush list, and set Opacity to 50%.
4. Select the Dodge tool from the Tool palette and paint over the image to lighten it. Hold down ALT as you paint with the Dodge tool to switch to the Burn tool. The image becomes darker wherever you paint.

5. Select the Smear tool from the Tool palette and paint a bit. Use fast and slow strokes. The image smears more when you use slower strokes.

6. Select the Alpha Add tool from the Tool palette, and paint the image with alpha to add transparency.

7. Switch to the Filter tab, then select and apply a filter by double-clicking on the filter name in the Filters list.
8. Select the Rectangular Selection tool from the Tool palette and make a selection.

9. Switch to the Select tab and enter 5 in the Feather field, then click on the Feather button to apply the feather.
10. Select Edit→Cut to remove the selected area.
11. Select the Alpha Memory tool from the Tool palette and paint to restore image opacity.

Working with Files

The main thing to remember about working with files in Logo Compose is that Logo Compose files are not saved with the .ins file. You should also remember to save your Logo Compose files often.

Logo Compose File Format

The Logo Compose file format (.lgo) is more than just another bitmap file format. Logo Compose files contain opacity settings and alpha values. If you save your image in any other format, you may lose the alpha channel.

Create a New Logo Compose File

You can create a new Logo Compose file by selecting Edit→Create New Image. You can specify the image size in pixels and the background color and opacity.

When you create a new image, Logo Compose creates a blank canvas showing 100% alpha. Because there are no color tools, you must either use the Alpha Subtract tool to add opacity, or use the Edit menu to copy another image onto your canvas.

Open or Import a File

When you want to work with an existing image, use the Import/Export options on the File menu. The File→Open option opens a job file in the Play List; it does not open image files. The following table describes the available import options. Logo Compose is a single file application; you can only have one file open at a time.

Import Options	Description
Import Image...	• imports a bitmap file
Import Image Sized To Fit...	• imports a bitmap file sized to fit the current canvas size
Import Image As Transformation...	• imports a bitmap file as a transformation in the current image • once you deselect the transformation, you can no longer move it separately
Import Selection...	• imports a bitmap file as a selection • once you deselect the selection, you can no longer move it separately from the image

Save or Export a File

When you want to save an image in Logo Compose, you have to export it. The following table describes all of the export options available in Logo Compose:

Export Options	Description
Export Image...	• exports current file as a bitmap image
Export Selection...	• exports selection outline as a bitmap image
Export Selection Contents...	• exports selection contents as a bitmap

If you save your image as a .lgo file, the alpha channel is retained when you use the image elsewhere in CG/S. If you select the File→Save option, CG/S saves the current Play List, not the Logo Compose image.

Import and Export Selections

Importing and exporting image selections gives you greater control over your work. If you painstakingly create a selection you know you are going to need later, you can use the File→Import/Export menu options to export the selection and import it again when you need it. See the tables above for Import/Export menu option descriptions, or "Understanding Selections" on page 240 for details.

Use Logo Compose Files in Other Modules

You can import Logo Compose files into other CG/S modules. You do not have to save your files as bitmaps to use them in CG or FX, since when you import Logo Compose files into other modules, they are automatically imported as bitmaps.

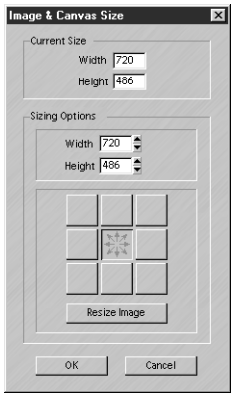
You can also use the Scrapbook to move Logo Compose images to other CG/S modules. This lets you use your images without saving them as separate files, as the images are saved in your .ins file instead. However, this method uses a lot more memory.

Change Image and Canvas Size

You can change the image or canvas size by selecting Edit→Image and Canvas Size. Resizing the image scales the image while resizing the canvas crops or adds canvas space without scaling the image.

To resize an image, enter the new image size (in pixels) in the Width and Height fields and click on the Sizing Image toggle button.

To resize the canvas, enter the new canvas size (in pixels) in the Width and Height fields. Select one of the nine positioning buttons to select where the image is located on the new canvas. For example, the Top Left button aligns the top left corner of the image with the top left corner of the canvas.



Experiment with Import/Export Options

1 Select File→Import Image and select the junebug.bmp file in the CGS41\Paint\Examples folder.

2 Select File→Import/Export→Import Selection and import the bug_selection.bmp file from the CGs41\Paint\Examples folder. Click on OK in the Select Channel dialog. The selection marquee appears in the Logo Compose workspace.

3 Switch to the Brush tab and set the Opacity to 50%.

4 Select the Alpha Fill tool from the Tool palette, and click in the selection to fill it.

5 Select File→Import/Export→Import Image as Transformation and select the bug_contents.lgo file from the Examples folder. Use the Move, Rotate, Scale, and Freeform tools to position and size the transformation. Press CTRL+D deselect and apply the transformation.

6 Select File→Import/Export→Export Image to save the image under a new name.

7 Select Edit→Image and Canvas Size and reduce the canvas size. The image is cropped to fit the new canvas.

8 Select File→Import/Export→Image Sized to Fit and select junebug.bmp. The image now fits the smaller canvas.

Working with Tools

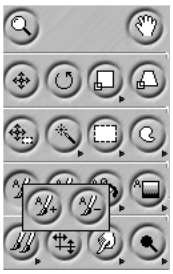
Logo Compose uses five types of tools: general, transformation, selection, alpha, and image editing tools. Most of the alpha and image editing tools are brush-based. That is, they edit the image as if you were using a paint brush on canvas.

Select a Tool

You can select a tool by clicking on a Tool palette button or from the right-click menu. The Attributes tabs contain options for various tools. The View tab contains options for the Zoom tool. The Brush tab contains brush attributes for the image editing and alpha tools. The Select tab contains options for the selection tools. The Transform tab contains options for the transformation tools.

Tool Palette and Palette Pop-Ups

The tool palette is separated into groups of similar tools. Many tool buttons on the palette contain pop-up menus that reveal additional tools. For example, the Alpha Add and Alpha Subtract tools share one button. When you click and hold this button, a pop-up menu appears with both tools. The tool that you select from the pop-up menu is the one that appears on the tool button.



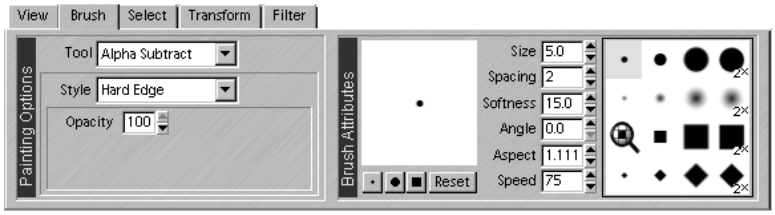
General Tools

There are two general tools in Logo Compose. They are described below:

Tool	Name	Description
	Zoom	• zooms the view in or out. To zoom in, click on the image. To zoom out, hold down the ALT key while clicking.
	Scroll	• scrolls or pans a zoomed in view. You can hold down the SPACEBAR to quickly switch to and use the Scroll tool while using another tool.

Brush-Based Tools

Most of the image editing and alpha tools, along with the Brush Selection tool, are all brush-based. These tools act on the image in ways similar to a paint brush, using settings from the Brush tab. Logo Compose has sixteen default brushes, but at any point you can redefine brush shapes and characteristics. See "Setting Brush Attributes" on page 234 for details.



Select a Brush

In the Brush list, click on the image of the brush you want to select. If the brush is larger than the image, Logo Compose displays the size factor.

Single Pixel Brush

The Single Pixel brushes are one pixel square, but are anti-aliased so they cover an area of at least three pixels. The hard-edge brush style offers the most precise single-pixel brush.

Elliptical Brush

The Elliptical brushes are the most used brushes in Logo Compose. Elliptical brushes are good general purpose brushes. For a nice soft brush, select an Elliptical brush and change the Softness to 100.

Rectangular Brush

The Rectangular brushes are good for painting large areas. They are also good for creating calligraphic effects and diamond patterns. To create a good calligraphy brush, select a rectangular brush, change the Angle to 320 and the Aspect to -0.25.

Brush Style

All brush-based tools use a brush style, selected from the Style drop-down list on the Brush tab. Logo Compose has three brush styles: Hard Edge, Soft Edge, and Soft Edge Buildup. The Hard Edge style does not use the Softness attribute.

The Hard Edge style applies the tool like a pencil. The Soft-Edge style applies the tool like a brush. The Soft-Edge Buildup style applies the tool like an airbrush.

Opacity

The Opacity field on the Brush tab sets the opacity for the selected tool. All image editing and alpha tools use the opacity setting. The Brush Selection tool also uses the opacity setting, so you can make selections at less than 100% opacity. See "Understanding Selections" on page 240 for details on the Brush Selection tool.

Tablet Support

Logo Compose supports graphic tablets with pressure and erasers. Pressure translates into tool opacity for brush-based tools. The eraser end of the tablet pen uses the Alpha Add tool.

Experiment with Tools

1. Select File→Import Image and select an image in the Open dialog.
2. Select the Zoom tool from the Tool palette and click in the Logo Compose workspace to see the image in greater detail.

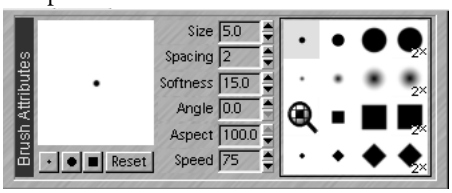
3. Switch to the Scroll tool and drag the tool around the workspace to pan the image.

4. Switch to the View tab and select 100% from the Zoom drop-down list to return to the original view.
5. Select the Alpha Add tool from the Tool palette and paint a bit.

6. Switch to the brush tab and change the Size to 30, the Aspect to 1.4, and the Angle to 45 and try out your new brush.
7. Enter 50 in the Opacity field and try out the brush. The Alpha Add tool now adds only partial transparency to your image.
8. Select Soft Edge from the Style drop-down list on the Brush tab, and set the Softness to 90. When you paint with this brush your get very soft strokes with highly anti-aliased edges.
9. Select the Hard Edge style from the Brush tab and paint with this brush. The brush strokes are no longer soft. The Hard Edge style ignores the Softness value and creates sharper edges.

Setting Brush Attributes

Brush characteristics help define and accentuate the behavior of all brush-based tools. You may find that some settings look great for certain tools but need to be modified for others. Brushes have six attributes: size, spacing, softness, angle, aspect, and speed.



Brush Preview Cursor

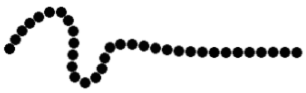
The Brush Preview cursor can be one of your greatest assets when experimenting with brush characteristics. It lets you see the effects of the current brush settings before you make any changes to your image. The Brush Preview cursor is enabled by default. To disable this option, switch to the View tab and clear the Brush Preview Cursor checkbox.

Size

The Size attribute specifies the overall size of the brush in pixels. The size of the brush affects painting speed.

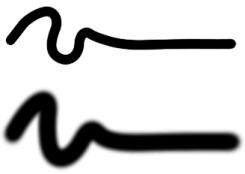
Spacing

The Spacing attribute specifies the spacing between brush marks as a percentage of the brush size. You can modify this attribute to create unique strokes.



Softness

The Softness attribute specifies the softness of the brush edges. The larger the value, the greater the softness. A value of 0 means no softness. The Softness value is not used by the hard-edge brush style.



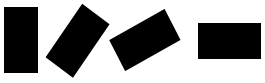
Aspect

The Aspect attribute specifies the width of the brush as a factor of the brush width over brush height. When used in conjunction with the Angle attribute, you can design brushes that create calligraphy effects.

By default, the brush Aspect is corrected for the current video aspect ratio. Circular stokes look circular and square strokes look square in Logo Compose and on video. See “Video Aspect Ratio” on page 259 for details.

Angle

The Angle attribute specifies the counter-clockwise angle of the brush in degrees (0 to 359). Usually you change this attribute once you have changed the brush Aspect.



Speed

The brush Speed attribute affects the speed at which Logo Compose calculates your brush stroke. This attribute is dependent on the size of the brush. The higher the setting, the more calculations Logo Compose performs. If you want to paint slowly, lower Speed to smooth the stroke.

Change a Brush Visually

You can change the selected brush visually in the Brush window. The Brush window provides a preview of the current brush. The preview shows certain brush attributes: size, softness, angle, and aspect. You can change the size, angle, and aspect in the Brush window on the Brush tab.

Cursor	Name	How to...
	Size cursor	• to change size, click and drag in the Brush window
	Angle cursor	• to change angle, hold down the SHIFT key and drag in the Brush window
	Aspect cursor	• to change Aspect, hold down the CTRL key and drag in the Brush window

Reset the Brushes

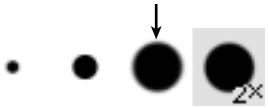
You can reset a brush to its default value by clicking on the Reset button. You can reset all the brushes to their defaults by holding down the SHIFT key and clicking on the Reset button.

Experiment with Brush Attributes

1 Select File→Import/Export→Import Image and select an image.

2 Select the Alpha Add tool from the Tool palette and switch to the Brush tab.

3 Hold down the SHIFT key and click on the Reset button to reset all brushes to their default values.

4 Select the third brush in the first row of the Brush list and paint a bit. 

5 Enter 64 in the Size field, 14 in the Spacing field, and 100 in the Softness field and paint a bit. The strokes have a much softer look due to the Softness value.

6 Click on the Reset button and enter 50 in the Opacity field. Now when you paint, some of your image still shows through your strokes.

7 Double-click in the Opacity field to reset the value to 100, and increase the Spacing to 20 and paint a bit. Now, increase Spacing to 35 and paint some more. The stroke becomes less and less solid.

8 Click and drag in the Brush window to make the brush smaller.

9 Hold down the SHIFT key and click and drag in the Brush window to change the brush angle.

10 Click on the Square Brush button to convert the brush to a square brush, and paint some more.

11 Enter 0.125 in the Aspect field and paint a bit. The stroke is almost completely broken.

12 Double-click in the Spacing field to reset this value to the default. You now have a good calligraphy brush.

13 Experiment with the other tools and attributes to get a feel for the way brushes work in Logo Compose.

Working with Alpha Tools and Logos

Removing background information from around logos or objects is one of the primary reasons for using Logo Compose. This task is often referred to as logo clean up. Effective and efficient logo clean up calls for proficiency with both the alpha tools and the selection tools. See "Understanding Selections" on page 240 for details on making selections.

Why Add Alpha?

When an image or area of an image is transparent, video shows through. It is often necessary to add alpha so that the video signal shows through in certain areas. For example, if you are cleaning up team logos for the basketball games aired on your station, you want to be able to paint with alpha to clean up edges on the logos.

Alpha Tools

All of the alpha tools have two special characteristics: they only manipulate the alpha channel and they remember what the alpha values were before you manipulated the image alpha. The eight alpha tools and their functions are listed in the table below.

Tool	Name	Description
	Alpha Add*	• paints with alpha—adds transparency
	Alpha Subtract*	• removes alpha—adds opacity
	Alpha Memory*	• restores alpha levels to their original values
	Alpha Fill	• fills the image or selection with alpha
	Alpha Luminance Fill	• fills all pixels adjacent to the selected pixel with alpha based on luminance values of the image. • the Tolerance value specifies the range of luminance values for pixels to be filled in
	Alpha Tolerance Fill	• fills all pixels adjacent to the selected pixel with alpha based on tolerance (hue) values of the image. • the Tolerance value specifies the range of hues for pixels to be filled in

Tool	Name	Description
	Alpha Linear Gradient	• performs a linear gradient on the alpha channel • image appears to fade to video
	Alpha Radial Gradient	• performs a radial gradient on the alpha channel • image appears to fade to video

*These tools are brush-based; they use brush attributes such as style, shape, and size set on the Brush tab. See "Setting Brush Attributes" on page 234 for details.

Restore Alpha

Memory is a characteristic specific to the alpha tools. No matter what alpha tool you use to manipulate the alpha channel, the Alpha Memory tool can restore it.

Vector-Based Logos

Some logos are stored in vector-based file formats, such as .eps or Illustrator files. Logo Compose cannot use vector-based files, so you need to convert these files to raster-based images, such as .bmp or .jpg. Programs like Adobe Illustrator and Photoshop are capable of making these conversions.

Scale and Resize Logos

Most of the time, you will need to resize your logos to get them to the size you need for output to video. You will get better results if you start with a large image (720 NTSC or PAL) and scale it down later. If you are scanning a logo, scan it in at 200% to 400% of the image size to give yourself more detail to work with. Scale your logo to the size you need when you finish editing it, or when you import it into CG.

Use Logo Compose Images in CG

Once you've cleaned up your logo, you can export it from Logo Compose and add it to the Logo Map in CG to use it as a text or graphic object. See"Adding Logos to Layouts" on page 150 for details on using logos in CG.

You can also import images from Logo Compose to use as backgrounds or textures for text and graphic objects. See "Using Video and Image Backgrounds" on page 68 and "Defining Classic Textures" on page 130 for details.

Experiment with Alpha Tools

1 Select File→Import/Export→Import Image and select an image to import.

2 Select the Alpha Linear Gradient tool from the Tool palette and draw a line across your image to apply a gradient. The gradient goes from fully opaque to fully transparent.

3 Select the Alpha Subtract tool and paint over the transparent areas. This tool subtracts alpha by adding opacity.

4 Switch to the Brush tab and set the Opacity value to 75.

5 Select the Alpha Add tool and paint over opaque areas too add transparency. Because the opacity is not 100%, some of the image detail shows through.

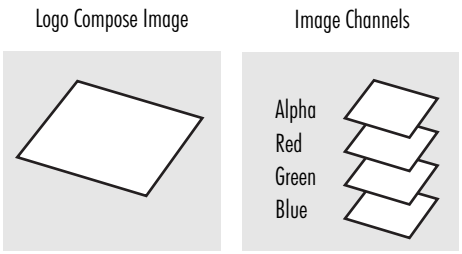
6 On the Brush tab, set the Opacity value back to 100%. Select the Alpha Memory tool and paint on the image. Image alpha values is restored to its original value.

7 Select the Alpha Fill tool, change the Opacity to 50%, and click in the image to fill with alpha.

Understanding Alpha

The main feature of Logo Compose is its ability to manipulate and paint with alpha. Logo Compose is a full-fledged 32-bit image-editing program that really understands the alpha channel. You can paint, edit, transform, and apply filters to the alpha channel completely independent of the color channel.

The Logo Compose Image



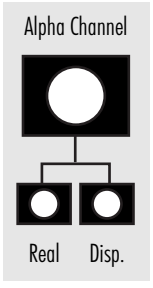
In Logo Compose, you can only work on a single image at a time. Each image has four channels: the red, green, blue, and alpha channels. The alpha tools let you work on the alpha channel. There are no color tools to work on the color channels, but some of the Color Adjustment filters and other Logo Compose options do allow you to work on a single color channel.

Image Channels

The color channel defines the color portion of the image while the alpha channel defines the visible portion of the image. You can edit the channels individually and view the alpha channel separately from the color channel. See "Understanding Channels in Logo Compose" on page 260 for details on manipulating individual channels and "Viewing Your Image" on page 258 for details on viewing the alpha channel.

In Logo Compose, the alpha channel is represented by a grayscale image. White represents the areas that are fully opaque, and black represents the areas that are fully transparent.

Alpha Channel in Logo Compose



In Logo Compose, the alpha channel is actually made up of two channels: the real alpha channel and the displayed alpha channel. The alpha tools work on the displayed alpha channel while all other tools work on the real alpha channel.

The displayed alpha channel is unique to Logo Compose, and acts like a mask on the real alpha channel, which is the original alpha channel of the image. This real alpha channel is affected by all of the other paint tools. You need to understand this because the alpha tools remember the previous values by looking at the real alpha channel. The Alpha Memory tool cannot restore alpha when you use the image editing or transform tools because they affect the real alpha channel — the same channel the Alpha Memory tool uses as its memory.

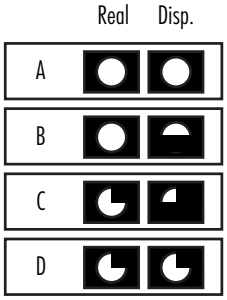
Alpha Tools

Logo Compose provides eight alpha tools: Alpha Add, Alpha Subtract, Alpha Memory, Alpha Fill, Alpha Tolerance Fill, Alpha Luminance Fill, Alpha Linear Gradient, and Alpha Radial Gradient. The alpha tools have two special

characteristics: they manipulate only the alpha channel, and they remember what the alpha values were before you manipulated the image alpha.

For example, if you import an image and paint it with the Alpha Add tool, it may appear as though you are erasing the image. If you paint over the newly created transparent areas with the Alpha Memory brush, the alpha values in the image are restored to their original values. Remember, though, if you use the selection tools to cut areas out of an image instead of the Alpha Add tool to add transparency, the Alpha Memory brush cannot restore the alpha values.

Alpha Tools—An Example



This example applies all of the information about the alpha channels that you now know. The illustration on the right has two columns containing small diagrams. The column labeled Real shows the real alpha channel and the column labeled Disp. shows the displayed alpha channel for the four steps (A, B, C, D).

In step A, the image is a circular object, such as a 32-bit image of a chocolate cake. At this point, both channels contain the same information. In step B, cut the cake in half using the Alpha Add tool to paint the lower part of the cake. The real alpha channel is unaffected. In step C, select the top right quarter of the cake using the Rectangular Selection tool, and press CTRL+X. Both channels are affected by the cut command. In step D, restore the cake image using the Alpha Memory brush. You can only restore three quarters of the cake since the CTRL+X command affected the real alpha channel. At this point, both channels contain the same information—there is nothing for the alpha tools to remember. For the rest of this chapter, the term alpha channel refers to the *displayed* alpha channel.

Working with Alpha Gradient Tools

1 Select File→Import/Export→Import Image and select an image to import.

2 Select File→Preferences and change the Video Transparent Pattern to a checkerboard pattern.

3 Switch to the Brush tab and select the Alpha Linear Gradient tool from the Tool drop-down list.

4 Set Opacity to 100%.

5 Click and release the mouse button in the Logo Compose workspace without dragging. This fills the image with alpha in the same way as the Alpha Fill tool.

6 Click in the image while holding down the ALT key to restore opacity.

7 Click and drag the Alpha Linear Gradient tool in the image. The image maintains its opacity where you start the gradient, and fades to alpha where you end the gradient. This direction is reflected in the cursor: the top is white, and the bottom is black. Black reflects where transparency is added.

8 Hold down the ALT key and click and drag in the Logo Compose workspace. The gradient direction is reversed. If you look closely at the cursor, the gradient colors are also reversed.

9 Select the Alpha Radial Gradient tool and experiment with different gradients. The Alpha Radial Gradient tool fades the image to video from the center of the circle outwards.

10 Hold down the ALT key and apply a radial gradient. The gradient now fades to video toward the middle of the circle.

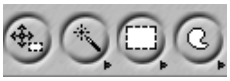
11 Change the Opacity value to vary the amount of transparency or opacity of your gradients. For example set Opacity to 50% to fill with 50% alpha.

Understanding Selections

In Logo Compose, you can edit an entire image at once, or you can specify which areas of the image you wish to work on. To work only on a particular area of an image, you must first select it. Once you have made a selection, you can import, export, modify, and move the selection outline, or you can modify, transform, and apply filters to the selection contents.

Selection Tools

There are ten tools you can use to make selections in Logo Compose. These are available on the Tool palette or from the right-click menu. Each tool offers a unique way of making a selection. See "Using the Selection Tools" on page 242 for details.



Select Tab

Once you have made a selection, there are many ways to modify it with the options on the Select tab. You can make complex selections using the Add, Subtract, and Intersect Selection options. You can invert a selection, add or remove edge pixels, change the degree to which pixels are selected, or select only the pixels around the edge of the selection. See "Modifying Selections with the Select Tab" on page 244 for details on making complex selections and modifying your selections.

Selection vs. Contents

Each selection has two parts: the selection outline and the selection contents. The selection tools and the options on the Select tab affect the selection outline. The brush-based tools, transformation tools, and filters modify the contents.

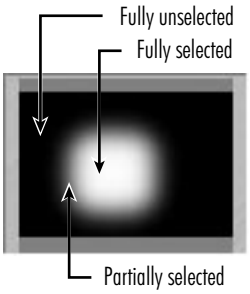
Selection Marquee

The selection area is outlined by a flashing dotted line called the selection marquee or 'marching ants'. The selection marquee only shows you which pixels are selected; as long as a pixel is at least 1% selected, it appears within the selection marquee. To see which pixels are more selected than others, look at the selection channel thumbnail.

You can hide the marquee by selecting the Hide Selection checkbox on the Select tab. The marquee disappears, but the pixels remain selected.

Selection Channel

The Selection Channel thumbnail on the Select tab shows the degree to which individual pixels are selected. Black represents areas that are 0% selected, white presents areas that are 100% selected, and shades of gray show areas that are only partially selected. Seeing these differences is very helpful when you are using the Brush Selection tool to select pixels at less than 100% opacity.



The Selection Channel thumbnail helps you keep track of how changes will be applied to your selection. Pixels that are 100% selected will be affected differently than pixels that are 50% selected when you edit them.

Opacity and Level of Selection

Pixels can be selected at a range of values from 1% to 100%. The level of selection of the pixels determines the degree to which the changes are applied when you edit the selection. For example, if you select an area at 50%, then apply a filter, the filter is applied to the selection at 50% opacity.

You can only select pixels at less than 100% opacity with the Brush Selection tool. Like all brush-based tools, you set the opacity level for this tool in the Opacity field on the Brush tab. When you make your selection, the Selection Channel shows the varying levels of selection of the pixels as a grayscale image.

Import and Export Selections

You can import and export selections to give you greater control over your work. To export a selection outline, select File→Import/Export→Export Selection. You can export the selection in a variety of file formats.

To import a selection, select File→Import/Export→Import Selection. This imports the selection or image outline, not the selection or image contents.

Import and Export Selection Contents

To export the selection contents, select File→Import/Export→Export Selection Contents. When you export the selection contents, Logo Compose crops the image to the selection and alphas out all unselected pixels. Make sure you save the image as a .lgo format, to maintain the alpha channel. If you do not, the area around the selection is black instead of alpha when you import the selection.

To import the selection contents, select File→Import/Export→Import Image as Transformation. If you select File→Import/Export→Import Selection, you will import only the selection outline.

Experiment with Opacity and Level of Selection

1 Select File→Import/Export→Import Image and import the junebug.bmp image from the CGS41\Paint\Examples folder.

2 Select the Lasso tool from the Tool palette and make a selection.

3 Switch to the Select tab. Note that the Selection Channel thumbnail is pure black and white, showing that all selected pixels are either 100% selected or 100% unselected.

4 Click in the Hide Selection checkbox. The selection marquee is hidden, but the selection remains active.

5 Select the Alpha Add tool and paint on the image. Alpha is added only to the selected areas.

6 Select the Brush Selection tool from the Tool palette and change the opacity on the Brush tab to 50%.

7 Paint a selection. Look at the Selection Channel thumbnail on the Select tab. Since you are not fully selecting each pixel, the selected areas of your image appear in gray instead of white.

8 Click on the Select Fully button on the Select tab. All selected pixels are now selected at 100%. The gray areas of the selection channel thumbnail turn white.

9 Enter 15 in the Feather field and click on the Feather button to apply the feather. The selection outline now appears in gray, showing that edge pixels are not fully selected.

10 Use the selection tools to make a selection around the junebug.

11 Switch to the Filter tab and select the Color Balance filter. Move the color sliders toward the extremes and apply the filter. The filter is most visible in the center of the selection, where pixels were more fully selected.

Using the Selection Tools

The selection tools in Logo Compose offer you a variety of ways of making selections. You can make a simple selection with only one tool, or you can refine and create complex selections by using a variety of tools and options.

Selection Tools

Logo Compose has ten selection tools, all located on the Tool palette. Each selection tool creates a differently shaped selection. The tools are described below:

Tool	Name	Description
	Selection Move	• moves the current selection
	Wand	• selects areas of similar color • the Wand Tolerance field on the Select tab specifies how similar colors have to be to for inclusion in the selection
	Luminance Wand	• selects areas of similar luminance • the Wand Tolerance field on the Select tab specifies how similar the values have to be for inclusion in the selection
	Brush Selection	• selects areas using the current brush attributes • you actually paint a selection with this tool
	Rectangular Selection	• selects a rectangular area
	Elliptical Selection	• selects an elliptical area
	Scan Line Selection	• selects an entire scan line
	Column Selection	• selects a column one pixel wide
	Lasso	• lets you draw a freehand selection
	Linear Lasso	• lets you select an area as a free-form polygon • you draw a series of connected lines, then double-click or hold down the CTRL key and click to close the selection

Creation Options

When making a selection, you can specify whether you want to make a single selection, add to an existing selection, subtract from an existing selection, or intersect a new selection with an existing selection. You can also specify that you only want to move the current selection. These options are available in the Selection Tools section of the Select tab.

Button	Name	Description
	Single Selection	• creates a new selection every time you draw a selection
	Add to Selection	• adds a selection to the current selection • you can also use the SHIFT key with the Single Selection button selected to add selections
	Subtract from Selection	• subtracts new selections from the current selection • same as using the ALT key with the Single Selection button selected
	Intersect Selection	• intersects any new selections with the current selection • same as using the SHIFT and ALT keys with the Single Selection button selected
	Move Selection	• moves the current selection

Clean Up a Logo

1 Select File→Import/Export→Import Image and import the guitar.bmp file in the CGS41\Paint\Examples folder.

2 Select the Lasso tool from the Tool palette and select the area around the guitar, getting as close to the guitar as possible without including it in the selection.

3 Press CTRL+X to cut away this area.

4 Repeat steps 2 and 3 until you have cut away most of the area around the guitar.

5 On the View tab, select 500% from the Zoom drop-down list.

6 Select the Wand tool, set the tolerance to 15 on the Select tab, and select the pixels around the guitar. Use the SHIFT key to add to the existing selection. When you get to the bottom the guitar, you will have to decrease the wand tolerance to 5 to avoid selecting guitar pixels.

7 Press CTRL+X to cut away the selected areas.

8 Switch to the Alpha Add tool, select the smallest brush, and paint over any stray pixels around the guitar. You can use the Alpha Memory brush to correct any mistakes.

9 Select the Wand tool, set the tolerance to 0, and click in the area outside of the guitar to select it.

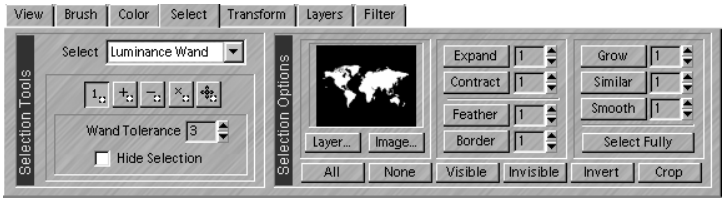
10 Enter a value of 3 in the Feather field and click on the Feather button to feather the selection slightly.

11 Click on Invert to invert the selection.

12 Select File→Import/Export→Export Selection Contents, name the file in the Save As dialog, and save it as a .lgo file. You can now use the logo in another Logo Compose image, or in a CG layout.

Modifying Selections with the Select Tab

Selections can be powerful tools, and you can create, modify, and use them in numerous ways with the options on the Select tab.



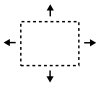
Selection Buttons

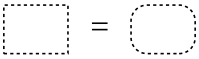
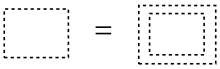
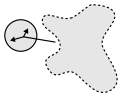
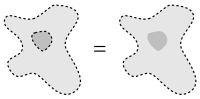
The selection buttons on the Select tab affect the current selection. They are described below:

Button	Description
Image as Selection	• calls the Channels dialog in order to select a specific image channel
All	• selects all the pixels in the image
None	• deselects all selected pixels and ends a transformation
Visible	• selects all visible pixels in the image (all pixels that are not 100% transparent)
Invisible	• selects all invisible pixels in the image (all pixels that are not 100% opaque)
Invert	• inverts the current selection
Crop	• crops the image to the current selection
Select Fully	• selects all pixels in the current selection at 100%

Selection Fields

The selection fields are described below. To use the fields, enter a specific value in the appropriate field and click on the corresponding button to apply the change. The expand, contract, feather, and border values are measured in pixels.

Option	Illustration	Description
Expand		• enlarges the selection outward

Option	Illustration	Description
Contract		• shrinks the selection inward
Feather		• feathers or softens the selection by selecting pixels at lesser levels
Border		• creates a border around the selection centered on the edge of the selection
Grow		• swells the selection based on the tolerance value • extends the selection based on the pixel values of its neighbors
Similar		• selects regions similar to the current selection based on the tolerance value
Smooth		• includes or excludes pixels in the selection based on whether or not the majority of nearby pixels are selected

Import a Selection to Create an Effect

1 Select File→Import/Export→Import Image and select the canada_map.tif file from the CGS41\Paint\Examples folder.

2 Select File→Import/Export→Import Selection and select the worldmap.lgo file from the CGS41\Paint\Examples folder. The Select Channel dialog appears.

3 Select the Grayscale (RGB Channels) radio button. Enter a scale factor of 1.3 for the Scale X and the Scale Y fields. Enter an offset of 60 in the From Top field and 40 in the From Side field. Click on OK.

4 Switch to the Select tab and click on the Invert button.

5 Switch to the Filter tab and set the Opacity to 75%, and double click on the Color Adjustment→Monochrome filter in the Filters list. This applies the Monochrome filter at 75% opacity.

6 Switch to the Select tab and click on the Invert button again.

7 Enter 6 in the Feather field and click on the Feather button. This feathers the original selection by 6 pixels.

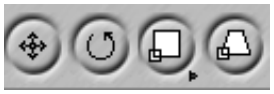
8 Repeat steps 2 and 3, but select the Subtract From Selection radio button before clicking on OK. Only the feathered edge pixels remain selected.

9 Switch to the Filter tab and select the Color Balance filter. Move the top slider all the way to the left and the bottom slider all the way to the right to give the selection a blue glow.

Imported Image | Selection Channel Source | Final Image

Using the Transformation Tools

The Transform tab and the Transformation tools on the Tool palette control all the transformation options, allowing you to move, scale, rotate, and otherwise modify your selections. You can also use these tools to add shadows.



Selections and Transformations

Selections define the areas to be transformed. If you haven't made a selection, the entire image is transformed when you select a transformation tool or use a transform option.

Transform Tab vs. Transformation Tools

Many of the options on the Transform tab act like transformation tools, but are not tools in the strictest sense. The values on the tab mimic the transformation tools as closely as possible, but they may not always do what you expect. The Transform tab also includes several transformation options that are not accessible through the Transform tools.

Transformation Tools

The five transformation tools, available on the Tool palette, are described below. You can also alter the move, scale, skew, and rotate values from the Transform tab.

Tool	Name	Description
	Move	• moves the selection
	Scale	• scales the selection
	Skew	• skews the selection
	Freeform	• transforms individual points of the selection
	Rotate	• rotates the selection

Import Images as Transformations

You can import an image as a transformation into the current Logo Compose document. This is the method the Scrapbook uses to place images in Logo Compose. To import an image as a transformation, select File→Import/Export→Import Transformation, and navigate to your image location.

Transformation Modifiers

There are two modifier keys you can use when you apply transformations with the transformation tools. Holding down the ALT key pastes copies of the selection contents while you are transforming. Holding down the CTRL key pastes a copy when the mouse button is pressed.

Exit Transformations

You can use several methods to exit a transformation:

Method	Outcome
SHIFT+ESC	• exits the transformation without applying it
ESC	• applies and exits the transformation
None	• applies and exits the transformation • button is located on the Select tab
Select a new tool	• applies and exits the transformation

Experiment with Transformations and Create a Shadow

1 Select File→Import/Export→Import Image and import the ransom.ipt file in the CGS41\Paint\Examples folder.

2 Make a selection around the letter R with the Rectangular Selection tool.

3 Select the Rotate tool from the Tool palette and rotate the letter R counter-clock wise.

4 Press CTRL+D to deselect the letter and apply the transformation.

5 Make a selection around the letter N.

6 Select the Scale tool from the Tool palette, scale the letter N down, and apply the transformation.

7 Use the selection tools to select the rest of the letters and the Move, Rotate, Scale, and Freeform tools to arrange the rest of the letters to suit your tastes.

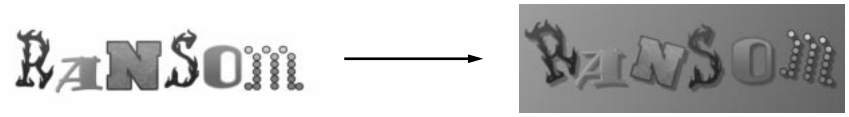
8 Use the Rectangular Selection tool to draw a box around all the letters.

9 Press CTRL+C or select Edit→Copy to copy the selection.

10 Switch to the Filter tab and select the Level Curves filter. Adjust the curve so that the letters turn completely black. This will be the shadow.

11 Press CTRL+D to deselect the letters, then press CTRL+V to paste the copy of the original letters.

12 Use the Move tool to position the letters over the shadow.

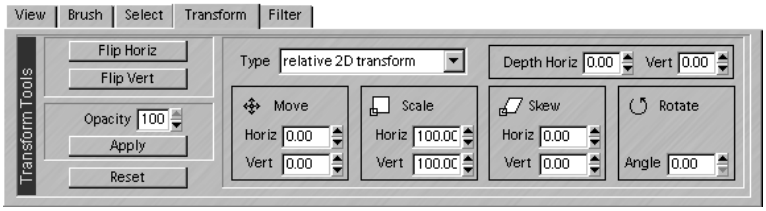


Logo Compose Document

Final Logo Compose Image

Using the Transform Tab

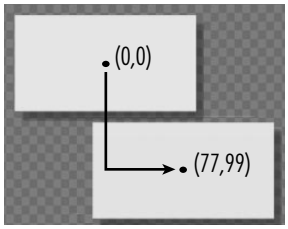
The Transform Tab provides options for more precise control over your transformations. You can adjust the opacity, flip your selections and add depth, and select relative or absolute transformations.



Transformation Type

You can modify your transformations based on three frames of reference: relative 2D transform, relative corner offsets, and absolute corner position. You can select your frame of reference from the Type drop-down list on the Transform tab. The main difference between the frames of reference is in the way Logo Compose measures the movement through the workspace.

Relative 2D Transform



This frame of reference finds the centre point of your transformation and sets its initial position as the origin, with video coordinates (0, 0). Any changes to the position of your transformation are measured in relation to this point.

This frame of reference moves, scales, skews, and rotates your selections in the same way as the Transform tools. Note that when you use the Skew, Scale, or Rotate fields on the Transform tab, the centre point of your transformation does not change. Only the Move fields change the position of the centre point.

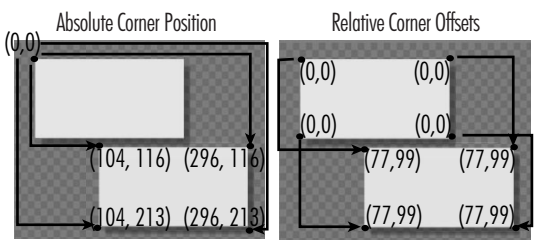
Relative or Absolute Corners

With the Relative Corner Offsets and Absolute Corner Position frames of reference, you can skew the transformation corners in unique ways with the Top Left, Bottom Left, Top Right, and Bottom Right fields on the Transform tab.

You end up with the same result whether you use the Relative Corner Offsets or Absolute Corner Position frame of reference; the difference is in the way the origins are set.

Absolute Corner Offsets uses the top left corner of the Logo Compose workspace as the origin. When you move a transformation to a specific location, its final coordinates are always the same, no matter what the initial position is. Since each corner occupies a different position, each corner has different video coordinates.

Relative Corner Offsets uses the four origins at each initial corner position for the transformation. When you move a transformation, the final coordinates are based on



each corner's initial position. If you move your transformation without skewing it, each corner has the same final coordinates, since each corner has moved an equal distance from its initial location.

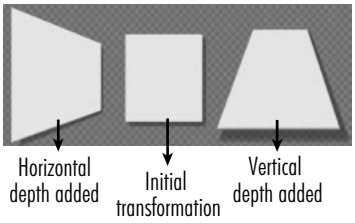
When you adjust a corner with the fields on the Transform tab, only the selected corner of your transformation is moved. With Relative Corner Offsets, the new corner position is measured from its initial position. With Absolute Corner Position, the new position is measured from the top left corner of the workspace.

Flip Horizontally and Vertically

The Horiz Flip button flips your image horizontally, along the vertical axis. The Vert Flip button flips your image vertically, around the horizontal axis.

Add Depth

The horizontal and vertical depth fields allow you to add depth or perspective to your transformations. Depth Horiz skews transformations left to right, so they recede into the background. Depth Vert skews transformations top to bottom, so they recede upward or downward.



Transformation Opacity

You can change the opacity of your transformations with the Opacity field on the Transform tab. This allows you to superimpose transformations as ghost images, or have more alpha showing through certain areas of your image.

Use the Transform Tab

1 Select File→Import/Export→Import Image and select CGbox.bmp from the CGS41\Paint\Examples folder.

2 Select the Wand tool and click on the box to select it.

3 Switch to the Transform tab, and make sure Relative 2D Transform is selected from the Type drop-down list.

4 The Move Horiz and Vert values on the Transform tab are both 0.00. Move the transformation around using the Move tool, and note how the coordinates change.

5 Type 140 in the Move Horiz field and 70 in the Move Vert field.

6 Select Relative Corner Offsets from the Type drop-down list. The coordinates in the X and Y fields are the same for each corner because each corner is offset from its initial position by the same amount.

7 Double-click in the X and Y fields for the Top Left corner to reset them to their original values. This corner moves back to its original position.

8 Select Absolute Corner Position from the Type drop-down list of the Transform tab. The corner coordinates are now measured from the top left corner of the Logo Compose workspace.

9 Change the X and Y values for the Top Right corner to move it.

10 Click on the Flip Vert button to flip the object upside down.

11 Switch back to the Relative 2D Transform frame of reference and type 100 in the Vert Depth field to change the perspective.

12 Enter 50 in the Opacity field to increase the transparency of the transformation.

13 Click on the Reset button to reset the transformation to its initial position.

Editing an Image

In addition to simply adding alpha, Logo Compose offers several tools that you can use to edit and retouch your images. With the image editing tools, you can remove unwanted objects or artifacts, copy and offset areas, and adjust the luminance.

Image Editing Tools

Logo Compose has eleven image editing tools, described below. Tools marked with a * are brush-based. That is, they use the attributes set on the Brush tab.

Tool	Name	Description
	Clone*	• paints with image data • you can set the clone source and clone destination, or copy the image data to use as the clone source.
	Clone Fill	• fills with image data • you can set the clone source and clone destination, or copy the image data to use as the clone source.
	Smear*	• smears the image
	Blur*	• blurs the image
	Offset	• offsets the image and wraps the edges
	Dodge*	• lightens the image by moving the color values for the pixels up to their maximum; RGB (255,72,0) will dodge to (255, 255, 0)
	Burn*	• darkens the image by moving color values for the pixels to their minimum; RGB (255, 72, 0) will burn to (255, 0, 0)
	Luminance Add*	• lightens the image by adding luminance in HLS color space; all colors start to move towards white
	Luminance Subtract*	• darkens the image by subtracting luminance in HLS color space; all colors start to move towards black
	Saturation Add*	• adds chroma to the image by adding saturation in HLS color space. If the image is monochrome, Saturation Add acts like a tint tool using the foreground color to tint.

Tool	Name	Description
	Saturation Subtract*	• subtracts chroma from the image by removing saturation in HLS color space. All colors move towards gray.

Smear Settings

The Smear tool is sensitive to the speed of your stroke. The slower you move the smear tool across the image, the more you will smear the image colors. In the image to the right, the Smear tool was moved very quickly across the color boundary in the top smear, and very slowly across the color boundary in the bottom smear. The darker color was carried much further into the light color in the slower smear.

For a good smoky-looking Smear brush, set Opacity near 50% and increase Softness.

Experiment with the Image Editing Tools

1 Select File→Import/Export→Import Image and select an image.

2 Select the Smear tool from the Tool palette and drag over the image using both fast and slow strokes. Image colors are carried further when you use slower strokes.

3 Select the Offset tool and drag the image. Edge pixels are wrapped so that if you drag the image up, the top portion of the image appears at the bottom of your screen. Align the image so that the corners are at the center of the image.

4 Switch to the Blur tool and blur out the edge seams.

5 Use the Lasso and Wand tools to make a selection.

6 Select the Dodge tool, set the brush opacity to 50% and drag to lighten the selection.

7 Click and hold over the Dodge tool on the Tool palette until the pop-up menu appears, and select the Burn tool.

8 Drag the Burn tool over the image to darken it.

9 Select the Saturation Add tool from the Tool palette and drag it around the image to increase the color saturation.

Retouching Tips:

Now that you have seen what the image editing tools can do, you can use the ones mentioned here, along with the clone tools, to remove unwanted artifacts from your images.

Use a small brush and small strokes, and monitor your brush attributes. A soft edge and high Softness value will give you a smoother look. The Brush Preview cursor is very helpful in letting you evaluate the outcome of each brush stroke before applying it.

If you want to retouch a very specific portion of an image, you can make a selection around it. Any tools you use will not be applied beyond the selection boundary.

Using the Clone Tools

The Clone and Clone Fill tools let you paint an exact duplicate of an image, or parts of an image, into the current image. As a brush-based tool, the Clone tool paints with the settings on the Brush tab. The Clone Fill tool lets you fill entire sections with image data with a single click.

Defining a Source Point

Before you can begin cloning, you need to define a source point. The source point is the location Logo Compose copies from when you start painting with the Clone or Clone Fill tools. With the Clone tool selected, position the cursor over the part of the image you want to use as the source, hold down the ALT key, and click the left mouse button. The cursor shape changes to show you that the source point is being set. When you begin painting, the source point is identified by a set of crosshairs.

Once you have defined a source point, you can begin painting anywhere in the current image. Wherever you click in the image, the Clone tool copies the source point. If you drag the Clone tool around, the source point moves to match your cursor movement. However, each time you release the mouse button and click again, the Clone tool returns to the originally defined source point. This means you can make several copies of the source point at different locations throughout the image.

You don't have to clone on the same image the source point was set from. You can close the current image and import a new one, or work on a blank canvas. Logo Compose remembers the image data from the previously defined source point.

Use the SHIFT Key

The SHIFT key changes how the clone source is set, depending on whether or not there is an active selection in the image.

If you press ALT+SHIFT+click to set the source point when there is no selection, Logo Compose copies the entire image and uses the copy as the clone source. This allows you to paint over the source point without losing the original clone source.

When there is an active selection and you press ALT+SHIFT+click instead of ALT+click to define the source point, Logo Compose takes a copy of the selection contents and uses that as the source image. For example, if you have a picture of a face and a selection around one eye, pressing SHIFT+ALT+click sets just the selected eye as the clone source. As you paint, only the eye is cloned. Remember to deselect the selected area before you begin cloning.

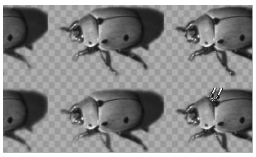
Use the CTRL Key and Align Checkbox

The CTRL key and Align checkbox on the Brush tab change how the clone destination is set. Enabling the Align option prevents a new destination point from being set, allowing you to stop and resume painting while creating a seamless clone. If the Align option is not enabled, pressing the CTRL key as you begin painting with the Clone tool has the same effect.

For example, if you are cloning an eye, but realize your brush is too big, you can stop painting and resize your brush. Then, as you begin to paint with the Clone tool again, hold down CTRL to continue the clone where you left off.

If Align is checked, holding down CTRL temporarily disables the Align option. This lets you set a new destination point for your clone without having to clear the Align checkbox.

Tile Checkbox



The Tile checkbox forces Logo Compose to tile the clone source information throughout your image. For example, if you have selected an eye and set it as your clone source, cloning with the Tile option enabled clones the eye over and over again as you drag the Clone tool throughout your image. If you are using an entire image as your clone source, Logo Compose tiles the image whenever the source point reaches the image edge.

Clone Fill Tool

The Clone Fill tool lets you copy sections of an image with the click of a mouse. When you set the clone source, the Clone Fill tool copies the entire image or selection, and pastes the source onto the entire picture or current selection.

For example, if you have an active selection and you use ALT+click to set the clone source, the Clone Fill tool fills the selection with a copy of the entire image, sized to fit.

The CTRL and SHIFT modifier keys and the Tile and Align checkboxes work the same way for the Clone Fill tool as for the Clone tool. For example, say you select an eye and set the selection as the source point using ALT+SHIFT+click. When you click in the image with the Clone Fill tool, the image is filled with a sized-to-fit copy of the eye. If the Tile option on the Brush tab is enabled, the Clone Fill tool tiles the eye throughout the image.

Clone an Image

1 Select File→Import/Export→Import Image and select the junebug.bmp image from the CGS41\Paint\Examples folder.

2 Select the Clone tool from the Tool palette, hold down the ALT key, and click on the bug's head to set it as the clone source.

3 Begin cloning in the top right corner of the image.

4 Stop cloning, switch to the Brush tab, and select a larger brush. Return to the top right corner of the image and hold down the CTRL key to continue cloning where you left off.

5 Select a new location in the image and clone some more. If you do not hold down the CTRL key as you begin cloning, the Clone tool returns to the originally defined source point.

6 Paint over the source point (bug's head), release the mouse button, then paint somewhere else in the image. The cloned image now reflects the new source data.

7 Reimport the image and set the clone source over the bug's head, this time holding down ALT + SHIFT instead of just ALT.

8 Repeat step 6. Because you held down the SHIFT key as you set the source point, the Clone tool always copies the original source data, even when you paint over the source point.

9 Switch to the Clone Fill tool and click on the image. The image is filled with the original image data.

10 Select around the bug with the Lasso tool. On the Select tab, enter 5 in the Feather field and click on the Feather button.

11 Switch to the Clone Fill tool, hold down ALT + SHIFT, and click in the selection to select the entire selection as the clone source.

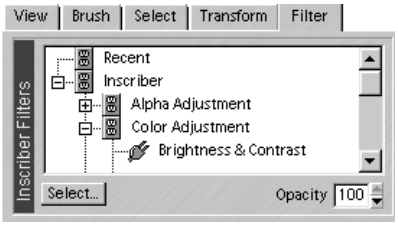
12 Select Edit→Create New Image and increase the width to 700.

13 Select the Tile checkbox on the Brush tab.

14 Click in the image to tile the image with bugs.

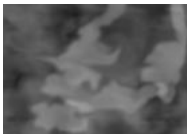
Applying Filters

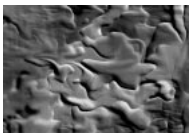
Inscriber filters extend the functionality of Logo Compose. All filters appear in the Inscriber Filters list on the Filter tab. Logo Compose does not support third party plug-in filters.



Why Use Filters?

Filters can be used to refine your images. Take the images on the right as an example. The image on the top is fairly bland. By applying a simple emboss filter to the image you can add interest—see the image on the bottom.





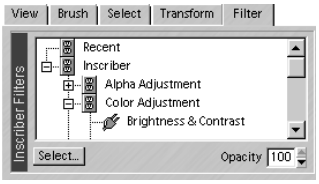
Other filters provide additional functionality for Logo Compose. For example, the Video Cleanup filters allow you to correct frame grabs without cluttering the user interface, while the Color Adjustment filters allow you to correct image color.

Inscriber Filters

The 33 filters that come with Logo Compose are broken into five groups, described below. See "Filters Explained" in the CG/S online help for full descriptions and demonstrations of each filter.

Filter Type	Function
Alpha Adjustment	• operates solely on the alpha channel
Color Adjustment	• operates solely on the color channel to adjust contrast or color levels
Distortion	• distorts the image in a variety of ways to create special effects
Legalize	• identifies and corrects illegal colors for display to video
Video Cleanup	• removes interlaced fields and corrects for flicker and luminance changes in images grabbed from video

When you first switch to the Filter tab, the filters list is collapsed, and only the filter types are listed. To expand the view to individual filters, click on the + symbol next to each filter type.



Recent Filters List

The Filters list contains two main headings: Inscriber and Recent. While all of the filters are listed under Inscriber, Recent contains a list of the last ten filters used. This gives you quick access to your most frequently used filters without having to navigate through the Inscriber list.

Apply Filters

The first step in applying a filter is to select it from the Filters list. You can either double-click on the filter name or click on the Select button to apply the filter. Some filters bring up a dialog with options for you to select, others do not. If a filter dialog is launched, Logo Compose provides a thumbnail preview of the filtered image.

Filter Opacity

Before applying a filter, you can set the opacity you want the filter to be applied at in the Opacity field on the Filter tab. This lets you create more subtle effects than applying a filter at 100% opacity. For example, if you want to desaturate an image, set Opacity to 10% and apply a monochrome filter.

Undo a Filter

If you don't like the effect of a filter after you've applied it, you can always undo it. The Undo command is especially important when you are work with the Mark NTSC Illegal Colors and Mark PAL Illegal Colors filters. These filters identify illegal areas of your image by changing them to a specified color. Since you probably don't want to keep the new color once you've identified illegal areas of your image, you will want to use the Edit→Undo command or CTRL+Z shortcut to undo the filter before you make any further changes to your image.

Use Filters to Correct Color and Create Effects

1 Select File→Import/Export→Import Image, select a color image, then switch to the Filter tab.

Correct image color

1 Apply the Color Balance filter, click on the Midtones radio button, and adjust the color sliders until you have the desired effect. Leave the Preserve Luminance box checked if you want Logo Compose to automatically compensate for changes in luminance as a result of changing image colors.

2 Repeat the Color Balance filter for the highlights and shadows, if desired.

3 If you did not leave the Preserve Luminance option on, you can use the Brightness & Contrast filter to fine-tune these values.

Simulate a duotone:

1 Apply the Monochrome filter.

2 Open the Brightness & Contrast filter and adjust these values.

3 Open the Color Balance filter and adjust the color sliders until you get the desired shade in the preview window.

Simulate a chrome effect

1 Open the Level Curves filter and add several extra anchor points to the curve at regular intervals by clicking on the curve.

2 Drag the anchor points away from the curve in a wave or zig-zag pattern and apply the filter. You may have to add and subtract anchor points and make the waves bigger or smaller until the desired effect is achieved.

Create other effects

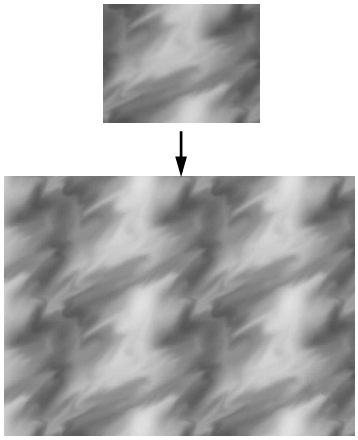
1 Experiment with the remaining filters to see what sort of effects you can create. The distortion filters offer some of the most interesting effects. Use the Color Emboss or Emboss filters to make an image look raised, bring an image into better focus with the Sharpen filter, or blur it with the Gaussian Blur filter.

2 Clean up frame grabs with the many Video Cleanup filters.

Creating Textures

You can create two types of textures in Logo Compose: seamless and alpha. These textures can be used as backgrounds in CG or in Logo Compose, or as textures for text and graphic objects in CG.See “Defining Classic Textures” on page 130 for details on using the textures in CG.

Seamless Textures



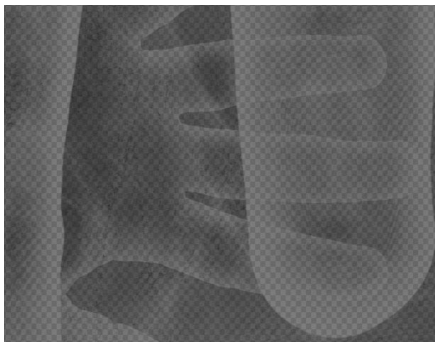
Seamless textures are good for all text objects, graphic objects, and backgrounds in CG. These textures are small areas that are tiled when used in CG to create a repeating, but seamless, pattern. Since every texture you use in CG is loaded into memory, using seamless textures cuts down on the amount of memory required. A good rule for the maximum size of your seamless textures is one half video resolution (NTSC 360x243 max).

Follow these steps to create a seamless texture in Logo Compose. For a specific example, see the procedure at the bottom of the next page.

- import an image
- use the filters and Image Editing tools to create a pattern
- select an area of interest and crop the image
- use the Offset tool to offset the edge pixels to the center of the image
- remove the seam using the Clone, Smear, or Blur tools
- export the image
- import the image as a texture in CG
- select the Tile radio button for text and graphic objects that use the texture

If you are using the texture as a CG background, make sure the Size to Fit checkbox is deselected.

Alpha Textures



Alpha textures are usually larger than seamless textures because the texture is applied to the entire image. Instead of texturizing the color channel, as in most textures, in an alpha texture the alpha channel is texturized.

Alpha textures may be more difficult to understand than seamless textures, but they are simpler to create:

- import an image or start with a new canvas and use the Alpha tools to remove all image alpha
- import a texture or image file as a selection
- paint with the Alpha Fill tool. Your imported texture or image is applied to the canvas as an alpha texture
- to better see the effect of your texture, press ENTER on your number pad to send the alpha texture to video
- export the image for use in CG

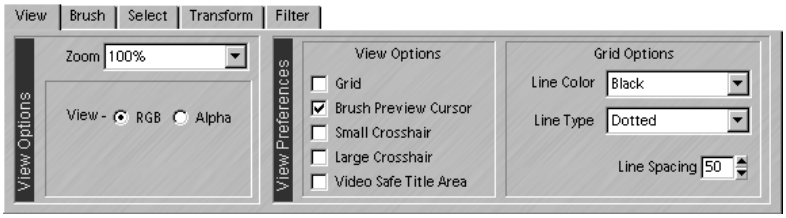
You can use this texture in CG as a background, logo, or texture.

Fill with a Seamless Pattern

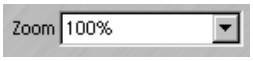
1. Select Edit→Create New Image to create a blank canvas filled with alpha.
2. Select File→Import/Export→Import Image as Transformation and import the seamless.bmp file in the CGS41\Paint\Examples folder. This file is a seamless pattern.
3. Switch to the Select tab and click on the None button to exit the transformation.
4. Select the Wand tool from the Tool palette and select the area around the texture.
5. Click on the Invert button to invert the selection.
6. Select the Clone Fill tool from the Tool palette.
7. Hold down the SHIFT and ALT keys and click inside the selection. This will make a copy of the selection to use as the clone source.
8. Click on the None button to deselect the selection.
9. Switch to the Brush tab, enter 100 in the Opacity field, and make sure the tile and Align checkboxes are checked.
10. Click in the Logo Compose workspace to fill the image.

Viewing Your Image

Logo Compose has a variety of viewing options, located on the View tab. These options, as well as the Zoom and Scroll tools, alter the actual view so you can view all of your image at various magnifications. All views are corrected for the current video aspect ratio.



Zoom



Logo Compose offers several zoom levels, at intervals from 12.5% to 3200%. Either select the desired zoom level from the Zoom drop-down list on the View tab, or use the Zoom tool on the Tool palette.

To zoom in with the Zoom tool, click on the image. To zoom out, hold down the ALT key and click on the image. All zoom levels are corrected for the current video aspect ratio.

Scroll

While zoomed in on an image, you can move around the image using the Scroll tool. To pan, select the Scroll tool or hold down the SPACEBAR then click and drag. The Scroll tool is useful when you are making selections while zoomed in on your image. You can also use the scroll bars on the right and bottom edges of the Logo Compose workspace.

View Radio Buttons

The View radio buttons change the views between the RGB channels and the alpha channel. With RGB selected, the image is seen as full color. With Alpha selected, only the alpha channel is seen. Image transparency is represented by a grayscale image, with full transparency appearing as black, full opacity appearing as white, and various shades of gray representing the gradations from transparent to opaque. See “Understanding Channels in Logo Compose” on page 260 for details on channels.

View Checkboxes

The View checkboxes let you select a variety of options, including grid view, cursor view, and video safe title area. To enable an option, select the checkbox. To disable an option, click in the checkbox to deselect it. Read on for descriptions of the various checkbox options.

Grid Options

The grid provides a rudimentary way of manually aligning images, selections, or brush strokes. To view the grid, select the Grid checkbox on the View tab. Then, select the line color and line type from the drop-down lists, and enter a line spacing value.

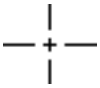
Cursor Options

The View tab offers three cursor options: Brush Preview cursor, Small Crosshair, and Large Crosshair. Each option is enabled or disabled by selecting the appropriate checkbox on the View tab.

The Brush Preview cursor previews the current brush tool. It lets you see the size, shape, opacity, and other attributes before you start painting.

Small Crosshair replaces the standard cursors with a fine crosshair. You can also access the small cursor by pressing CAPS LOCK. The small cursor is useful when you need to edit an image pixel by pixel.

Large Crosshair extends the crosshairs to the edge of your image. This is useful for finding the precise corners on square objects— just line the crosshair up with the edges of the object.



Video Safe Title Area

The Video Safe Title Area option displays the video safe area defined in CG. The video safe area is the portion of the image normally visible when viewed on an output monitor or television. See "Video Safe Title Area" on page 121 for details.

Video Aspect Ratio

All views and initial brush settings are corrected for the current video aspect ratio. The current video aspect ratio is set in the Inscribe.ini file. You need three values to set the video aspect ratio: the actual aspect ratio, the horizontal resolution, and the vertical resolution. The formula below gives the correction value that Logo Compose uses. This value is used for the views and the Aspect parameter in the Brush tab.

HorsResolution/VertResolution*Aspect(Vertical)/Aspect(Horizontal)

The parameters in the formula are taken from the [Configuration] section of the Inscribe.ini file. HorsResolution and VertResolution are actual entries that are set in the Preferences dialog. The Aspect parameter may or may not be in the .ini file. The Aspect parameter should be added as follows:

```
Aspect=x:y
```

where x is the horizontal value and y is the vertical value

The default aspect ratio for NTSC and PAL is 4:3. The default aspect ratio for HDTV is 16:9. If you need to change the corrected views in Logo Compose, make sure the formula above equals the correction you need. For example, the numbers for NTSC are 720/486*3/4=1.111. If you are creating images for square pixel use, for example the web, and you do not want video corrected views, make sure the formula equals 1. You don't always have to change the ratio when creating uncorrected images, since you can adjust the aspect of the brush-based tools using the Aspect field on the Brush tab.

Tools and Aspect Ratio

The default value for the Aspect field on the Brush tab is set to the current video aspect. Any brush strokes you make with the default aspect settings are corrected for output. For example, if you are working in NTSC, the default aspect is 1.111. If you view images created in Logo Compose at this aspect ratio using another application that does not use variable aspect ratio views, any circular brush strokes or objects appear elliptical. See "Understanding Video Color" on page 264 for details.

Understanding Channels in Logo Compose

Channels add an extra dimension to Logo Compose. They are used for a variety of tasks, and the concepts of Logo Compose channels are explained in this section.

What are Channels?

Images are made up of a series of channels: red, green, blue, and sometimes alpha. Each channel is an 8-bit image that represents a different part of the full image. For example, the red channel contains all the red pixels in the image. When you add the three 8-bit RGB channels, you get a 24-bit full-color image. Most image editing applications work with 24-bit images. In Logo Compose, you add a fourth channel, alpha. The alpha channel contains all the transparent pixels. When you add alpha to the RGB channels, you are adding 8 bits, so you get a 32-bit image.

Visualize Channels

Since channels are 8-bit, they can be represented by grayscale images. For example, if you open a 32-bit image in Logo Compose and select the Alpha radio button on the View tab to view the image alpha channel, it appears as a grayscale. Black represents full transparency while white represents full opacity. Anything between these two extremes is represented by a shade of gray.

Logo Compose also creates a selection channel when you make a selection. Switch to the Select tab and draw a selection. The thumbnail sketch on the Select tab is a grayscale image representing the current selection channel. White represents fully selected areas, black represents fully unselected areas, and shades of gray represent areas that are partially selected.

How Does Logo Compose Use Channels?

Channels are usually used as a mask on the image. If you select only the red channel, you are masking out the green, blue, and alpha channels so that only the red channel is available for editing. Similarly, the selection channel acts as a mask on the unselected pixels, so that only the selected pixels are available.

The Select Channel Dialog

Logo Compose uses the Select Channel dialog when you need to select channel options. Call the Select Channel dialog from the Image As Selection button on the Select tab whenever you want to select a specific channel. This dialog is called whenever you import a selection.

The Image thumbnail shows a sketch of the source file. The Selected Channel thumbnail shows a sketch of the current channel, as determined by the Source radio buttons.

The dialog displays four groups of channel settings. They are Source, Scale, Offset, and Options. The Options settings only appear when there is an active selection in the image.

The Source group settings determine what channels of the source image you use as the selected channel. The available channels are Luminance (All Channels), Grayscale (RGB Channels), Red Channel, Green Channel, Blue Channel, and Alpha Channel. Selecting Luminance (All Channels) combines the red, green, blue, and alpha channels. You can also invert and tile the selected channel.

The Scale and Offset settings let you scale and offset the selected channel. The Scale values are factors and the Offset values are measured in pixels.

The Options settings let you specify how to use the selected channel with the existing selection or transformation. The default setting is to use the selected channel as a new transformation, but you can also add the selected channel to the existing transformation, subtract the selected channel from the existing transformation, or intersect the selected channel with the existing transformation. These options allow you to create interesting effects.

Experiment on Individual Channels

1 Select File→Import/Export→Import Image and import RGBA_channels from the CGS41\Paint\Examples folder.

2 Right-click on the Scrapbook and select Add to add the image to the Scrapbook.

3 Switch to CG and select Use Background from the Scrapbook right-click menu.

4 Switch to the Color & Texture tab and select the RGB color model from the Color Model drop-down list.

5 Select the Color Picker, drag it around the image, and note the RGB values for the different shapes. The circle is pure red (255,0,0), the square is pure blue (0,0,255), the triangle is pure green (0,255,0), and the star and egg shapes are a combination of red, green, and blue.

6 Press ENTER on your number pad to do a take of the image. On your output monitor, you can see that some of the shapes are transparent.

7 Switch back to Logo Compose and click on the Image as Selection button on the Select tab to call the Select Channel dialog.

8 Select the Red Channel radio button and look at the grayscale image in the Selected Channel window. The circle appears completely white. Its pixels only contain red, so it is completely selected. The star and egg contain some red, so they are partly selected and appear grey.

9 Click on OK to close the dialog and select the red channel.

10 Select the Alpha Add tool from the Tool palette and paint over the image. Only the red pixels are edited.

11 Press CTRL+Z to undo the Alpha Add tool, and click on the Image as Selection button to call the Select Channel dialog again.

12 Select the Alpha Channel radio button and look at the grayscale image again. The alpha channel masks out transparent areas of the image. Black represents complete transparency, white represents complete opacity, and grey represents partial transparency.

13 Click on OK to close the dialog, and paint with the Alpha Add tool again. Since transparency has been masked out, only opaque pixels are selected in the image and available for editing. The more opaque pixels are more selected and are therefore more affected by the Alpha Add tool.

14 Press CTRL+Z to undo the Alpha Add tool, and call the Select Channel dialog. This time, select the blue channel.

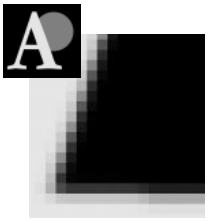
15 Press CTRL+X to delete all the blue pixels. The blue square disappears, but the star and egg are still partially visible because they also contain red and green.

Understanding Video Images

When editing any image, you need to take many variables into account, including the constraints and benefits of the medium you are working in. Computers have two general image types — vector and bitmap — each with their own limitations. Video, like any other medium, has its peculiarities and design challenges.

Vector-Based Images

In vector-based images, most draw objects are described mathematically. In CG, most objects are vector-based. In many well-known vector-based programs like Corel Draw, Freehand, and Illustrator, you can tell when an object is vector-based by the aliased edges. CG differs from these packages because the text and graphic object edges are always anti-aliased.

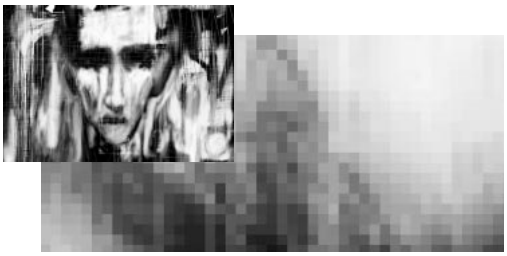


Text in CG

Text in Other Vector-Based Applications

Raster Images

In raster images, also known as bitmaps, objects are described by pixels. These pixels are arranged in a grid, or raster. Since a bitmap is defined by the number of pixels it contains, increasing its size can distort the image. Programs like Logo Compose, PaintShop Pro, Painter, and Photoshop manipulate raster images. Unlike these applications, Logo Compose is designed specifically for the video and broadcast industry.



Resize Bitmaps

Generally, you should not size an image or part of an image much beyond 120% in any application that manipulates bitmap images, including Logo Compose, CG, FX, Frame Grab, and other paint programs. In CG, logos, textures, and backgrounds are bitmap images—text, graphic objects, and all other objects are vector-based. In Logo Compose, FX, and Frame Grab, all objects are bitmaps, including text.

Design Challenges

Every design medium has its particular challenges. In print graphics, you need to understand CMYK color space, color separations, and the difference between image size and image resolution. In web graphics, you have to be concerned with

file size and web colors. In video graphics, you do not have to worry about image resolution or file size. Image resolution is the size of the image and file size is limited only by free hard drive space and installed RAM.

Dealing with pixel shape, different aspect ratios, and video legal colors are part of the challenge of creating graphics for video. Logo Compose has tools and features that are designed specifically for creating images for video.

Pixel Shape

In the world of computers and print, pixels are square. Pixel shape may seem obvious, but it is important because in the world of video and television, pixels are usually *not* square. Video pixels are actually slightly rectangular, so when you output images to video, your circles become ellipses and your squares become rectangles.

Aspect Ratios

Pixel aspect ratio is defined as the relationship between the width and height of a pixel. Computer monitor pixel aspect ratio is 1:1.

Television and video output ratios are not 1:1. The output picture aspect ratio depends on the standard (NTSC, PAL, or HDTV) you are creating the image for. Some older frame buffers let you define the output resolution separately. The picture aspect ratio for NTSC and PAL is 4:3 (width:height). For HDTV, the picture aspect ratio is 16:9.

Video Legal Colors

Logo Compose provides a group of video legal filters on the Filter tab. These filters allow you to identify illegal colors and provide several ways of converting them to video safe colors for NTSC or PAL. See "Applying Filters" on page 254 or the procedure "Mark and Legalize Illegal Colors" on page 265 for details.

Scale an Image

1. Select File→Import/Export→Import Image and import the scalexp.ipt file from the CGS41\Paint\Examples folder. Note any text in a Logo Compose file is a bitmap.
2. Press ENTER on your number pad to take the image to video. Notice how crisp the text is.
3. Select the Rectangular Selection tool and make a selection around the text.
4. Select the Scale tool and click in the Logo Compose workspace to activate the transformation handles.
5. Hold down the SHIFT key to constrain the selection proportions, click on a transformation handle, and drag outward to enlarge the text. Release the SHIFT key to view the results. Notice how the text gets a bit fuzzy as you enlarge it.
6. Enlarge the text so much that the words no longer fit in the Logo Compose workspace.
7. Press CTRL+D to exit and apply the transformation.
8. Press ENTER on your number pad to take the image. The text now looks very fuzzy on your output monitor. This experiment is meant to show you the effects of overscaling bitmaps. To maintain a crisp image, you shouldn't scale a bitmap beyond 120%.

Understanding Video Color

When you are working with graphics, it is sometimes difficult to tell which colors in your image may be illegal. The result of illegal colors is not as severe as it used to be—encoder technology is much better today, and many newer encoders automatically replace problem colors with similar colors. Avoiding illegal colors is now mainly a design consideration, but you should still try to create graphics that do not need to be significantly modified by hardware or software.

Know Your Colors

You should know which colors are problem colors before you begin creating video legal graphics. The least problematic main color is blue, followed by red, and then green. Combinations of red and green tend to produce stronger, and less legal, colors. Saturated yellows are probably the most problematic colors to work with. One method of guaranteeing that your colors are legal is to work with desaturated colors.

Know Your Tools

Some of the tools in Logo Compose can introduce illegal colors. For example, if you begin with an image with video legal colors but then paint with any of the Luminance Add, Luminance Subtract, Dodge, or Burn tools, or apply a filter that affects the luminance or chrominance values, you can potentially introduce illegal colors. But you do not have to avoid these tools or filters—this knowledge should help you create better graphics by predicting problem areas.

Ingredients for Illegal Colors

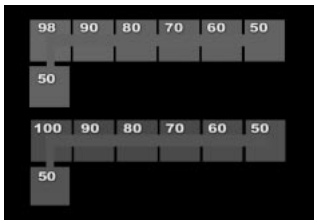
Colors with high chrominance and luminance values lean towards illegal, especially if they are combinations of red and green. Any highly saturated color that ranges from green to yellow or from red to yellow may be a problem. Colors with high chrominance and low luminance also lean towards illegal, so dark saturated colors can be problems as well.

Again, do not be afraid of using these colors, just use good judgement when using them. For example, if you are working with an image that has detailed areas with light greens, yellows, or reds, make sure the details are not just created with changes in color—details in these areas must be created by a difference in luminance as well. A difference in luminance implies contrast. Following this guideline is a good idea no matter what colors you are working with.

Saturation and Video

To understand which colors look good in video, you need to experiment with saturation. Colors that look quite different on your computer monitor may appear very similar, if not the same, on video. You should try using more than just different saturation values. Compelling images often have a good range of saturation, luminance, and chrominance.

Open the saturation.ipt file in the CGS41\Paint\Examples folder and take the image to video. Notice how the difference in saturation is more noticeable on your computer monitor than on your output monitor. In this example, you can see that you often don't need to use highly saturated colors for video images.



Saturation in the Real World

In the real world, colors are much less saturated than they seem. As an experiment, some footage was shot with a camcorder of everyday objects that seem to have saturated colors.

Switch to CG and open one of the grabs from this footage as a background image. On the Background tab, click on the background image sample and select the realworld.tga file in the CGS41\Paint\Examples folder. Select the Eye Dropper tool from the Background tab and drag it around the image. As you drag the Eye Dropper, look at the colors being selected. Notice that the saturation values for the colors are fairly low. This shows what the real world looks like when viewed by a video camera.

RGB Color Gamut and Gamma

Device gamuts describe the available colors that can be displayed on a particular device. The RGB color gamut describes the available colors in video and on the computer. Orange and yellow colors are in limited supply in the RGB gamut, which makes it difficult to select variations of yellow and orange.

Mark and Legalize Illegal Colors

1 Select File→Import/Export→Import Image and select dragonfly.ipt from the CGS41\Paint\Examples folder.

2 Select the Saturation Add tool from the Tool palette.

3 Switch to the Brush tab and set the Opacity to 70%.

4 Select the last brush on the first row of the Brush list.

5 Paint the center of the image, adding saturation to the dragonfly's body.

6 Right-click on the Scrapbook and select Add.

7 Switch to CG, right-click on the Scrapbook, and select Use Background.

8 Switch to the Color tab, select the Color Picker, and drag over the image, particularly over yellow areas. When you drag the Color Picker over illegal colors, the illegal color box appears on the Color tab. This means that you have introduced illegal colors with a tool that does not paint with color.

9 Switch back to Logo Compose and switch to the Filter tab. Select the Mark NTSC Illegal Colors or Mark PAL Illegal Colors filter.

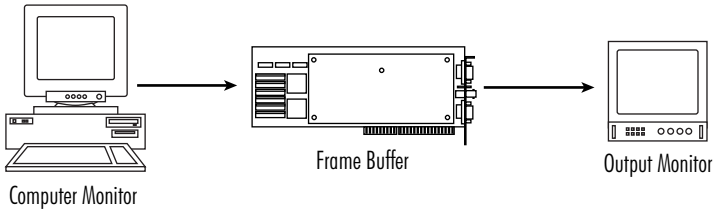
10 In the Mark Color window in the Mark Illegal Colors dialog, select a bright shade of red. When you apply the filter, areas with illegal colors appear in red. The Mark Illegal Colors filter identifies more illegal colors than the CG Color Picker.

11 Select Edit→Undo to undo the filter, then select the Complex NTSC Legalize or Complex PAL Legalize, set the upper and lower bounds, and click OK.

12 Reapply the Mark Illegal Colors filter. Hardly any of the image appears in red, meaning that almost all of the illegal colors in the image have been legalized.

Understanding the Calibration Process

In order to create stunning video legal images easily, you should calibrate the three components you need to create, view, and output your images. The three components are: frame buffer, output monitor, and computer monitor. Providing complete step-by-step instructions for the calibration process is beyond the scope of this manual, but this topic introduces the concepts and the general steps involved in setting up your system for creating the most usable Logo Compose images. The illustration below shows the parts of a complete Logo Compose system.



The Need for Calibration

The main goal of calibration is simple: you want the images you create in Logo Compose to look the same in video as they do on your computer monitor. To achieve this goal, you need to be working on a calibrated system. A secondary goal is to be able to use your images on different systems without a huge variation in the output. The key to the secondary goal is a set of frame buffers that are calibrated identically.

In a one-system setup, the secondary goal may not be as important. In this situation you may be able to get away with not calibrating your frame buffer if you create images that look fine on your output monitor. However, this method is not recommended.

Order of Calibration

The order in which you calibrate your devices is important. Unless otherwise stated, you should calibrate your system in the following order: frame buffer, output monitor, and computer monitor.

The Frame Buffer

The frame buffer is the most important of the three devices to be calibrated since it actually outputs your images. If the frame buffer is not properly calibrated, your images may experience shifts in color.

Calibrating your own frame buffer is not recommended unless you know what you are doing and have access to the proper equipment. When calibrating a frame buffer, you generally output a test signal and use a waveform and vectorscope to adjust the video levels and colors.

If you are a one-system shop or are only outputting images from the Logo Compose system, you may be able to work around not calibrating your frame buffer. You can try to match colors by eye between the output monitor and the computer monitor by setting your computer monitor to display similar colors to the output monitor. This method is not recommended since you are creating images that only look right if output using the current frame buffer.

The Output Monitor

Of the three devices you need to calibrate, the output monitor is the only one that does not affect the image itself or the image output. However, you still want to calibrate the output monitor since you use it to gauge what your image colors really look like in video. The quality of the image you see on your output monitor is much better than what you would see on the average television.

To calibrate your output monitor, you need to set the white point, set the black and white levels, and adjust the chroma and hue settings. The color temperature should be set to 6500K (warm). Set the contrast and brightness levels according to the Pluge test pattern. Adjust the chroma and hue according to the SMPTE color bars. See your output monitor documentation or the SMPTE ECR 1-1978 document for more information.

The Computer Monitor

Since Logo Compose is a WYSIWYG (what you see is what you get) paint package, you want to make sure your computer monitor is calibrated properly. If you create images without calibrating your monitor, the images will not appear correctly in video. For example, if your gamma is not corrected, oranges may appear red, or yellows may appear orange.

Calibrating your computer monitor involves several steps. You want to set the white point, correct the gamma, and adjust the brightness and contrast. If your monitor allows it, set the white point (using software or hardware) to match the output monitor (6500K).

Computer Monitor Gamma

You can correct the gamma in CG/S or using third party gamma correction software. To correct your gamma in CG/S, import the gamma.bmp file located in the CGS41\Paint\Examples folder. Select File→Preferences. Adjust the R, G, and B fields on the General tab until the small color bars virtually disappear. You may not be able to get the gray bar to disappear totally.

Computer Monitor Brightness and Contrast

You can set the brightness and contrast while viewing the smpte.bmp file. Import the smpte.bmp file from the CGS41\Paint\Examples folder. The smpt.bmp file contains an RGB version of the SMPTE color bar with a Pluge test pattern. This image should not be used to calibrate an output monitor since the values on the bottom row can not reproduce negative voltages.

The Pluge test pattern is what you want to look at—the area at the bottom right of the image. Adjust the brightness and contrast until the dark gray bars disappear.

Environmental Variables

When calibrating the output and computer monitors, remember that environmental variables such as office lighting and glare from windows affect how you perceive the images. You usually want to make sure light levels are consistent from one day to the next. You also want to minimize glare on the monitors.

Using Short Cut Keys

In Logo Compose, one of the main ways to speed up your work is to use the short cut keys. You can use short cut keys for selecting tools and using Logo Compose functionality.

Tools

Many, but not all, Logo Compose tools have a short cut keys. They are listed below:

Tool	Short Cut Key
Transform Tools	
• Move	CTRL+SHIFT+ALT+V
• Rotate	CTRL+T
• Scale	CTRL+SHIFT+ALT+T
• Skew	CTRL+ALT+T
• Freeform	CTRL+SHIFT+T
Selection Tools	
• Wand	CTRL+SHIFT+ALT+W
• Luminance Wand	CTRL+ALT+W
• Brush Selection	CTRL+SHIFT+ALT+C
• Rectangular Selection	CTRL+SHIFT+ALT+M
• Elliptical Selection	CTRL+ALT+M
• Lasso	CTRL+SHIFT+ALT+L
• Linear Lasso	CTRL+ALT+L
General Tools	
• Scroll	CTRL+SHIFT+ALT+H
• Zoom In	CTRL+SHIFT+ALT+Z
• Zoom Out	CTRL+ALT+Z

Tool	Short Cut Key
Alpha Tools	
• Alpha Add	CTRL+SHIFT+ALT+J
• Alpha Subtract	CTRL+ALT+J
• Alpha Memory	CTRL+SHIFT+ALT+R
• Alpha Linear Gradient	CTRL+SHIFT+ALT+P
• Alpha Radial Gradient	CTRL+ALT+P
Image Editing Tools	
• Dodge	CTRL+SHIFT+ALT+O
• Burn	CTRL+ALT+O
• Luminance Add	CTRL+SHIFT+ALT+Q
• Luminance Subtract	CTRL+ALT+Q
• Clone	CTRL+SHIFT+ALT+S
• Clone Fill	CTRL+ALT+S
• Offset	CTRL+ALT+U
• Smear	CTRL+SHIFT+ALT+U

Functionality

Some of the most popular features in Logo Compose also have short cut keys. These features are listed below.

Functionality	Short Cut Key
• Cut	CTRL+X
• Copy	CTRL+C
• Paste	CTRL+V
• Select All	CTRL+A
• Select None	CTRL+D
• Select Visible	CTRL+ALT+A
• Select Invisible	CTRL+SHIFT+A
• Invert Selection	CTRL+SHIFT+I
• Crop	CTRL+SHIFT+C

Functionality	Short Cut Key
• Undo	CTRL+Z
• Redo	CTRL+SHIFT+Z
	CTRL+Y
	CTRL+R
• Redraw	CTRL+SHIFT+R
• View Normal	CTRL+SHIFT+0

Experiment with Short Cut Keys

1 Select File→Import/Export→Import Image and open the ransom_dev.ipt file in the CGS41\Paint\Examples folder.

2 Hold down the CTRL, SHIFT, and ALT keys and press Z to zoom in.

3 Press CTRL+SHIFT+ALT+H to select the Scroll tool, and drag the mouse around to pan the image.

4 Press CTRL+SHIFT+ALT+L to select the Lasso tool, and draw a selection around the R.

5 Press CTRL+SHIFT+ALT+T to select the Scale tool, and slightly decrease the size of the R.

6 Press CTRL+D to apply the transformation.

7 Press CTRL+SHIFT+ALT+M to select the Rectangular Selection tool, and draw a box around the A.

8 Press CTRL+T to select the Rotate tool, and rotate the A. Press CTRL+D to apply the transformation.

9 Hold down the CTRL+SHIFT+0 (zero) to size the view to 100%.

10 Press CTRL+SHIFT+ALT+W to select the Wand tool, increase the wand tolerance to 35 on the Brush tab, and click on the N.

11 Press CTRL+SHIFT+ALT+O to select the Dodge tool, set Opacity to 50 on the Brush tab, and paint over the N.

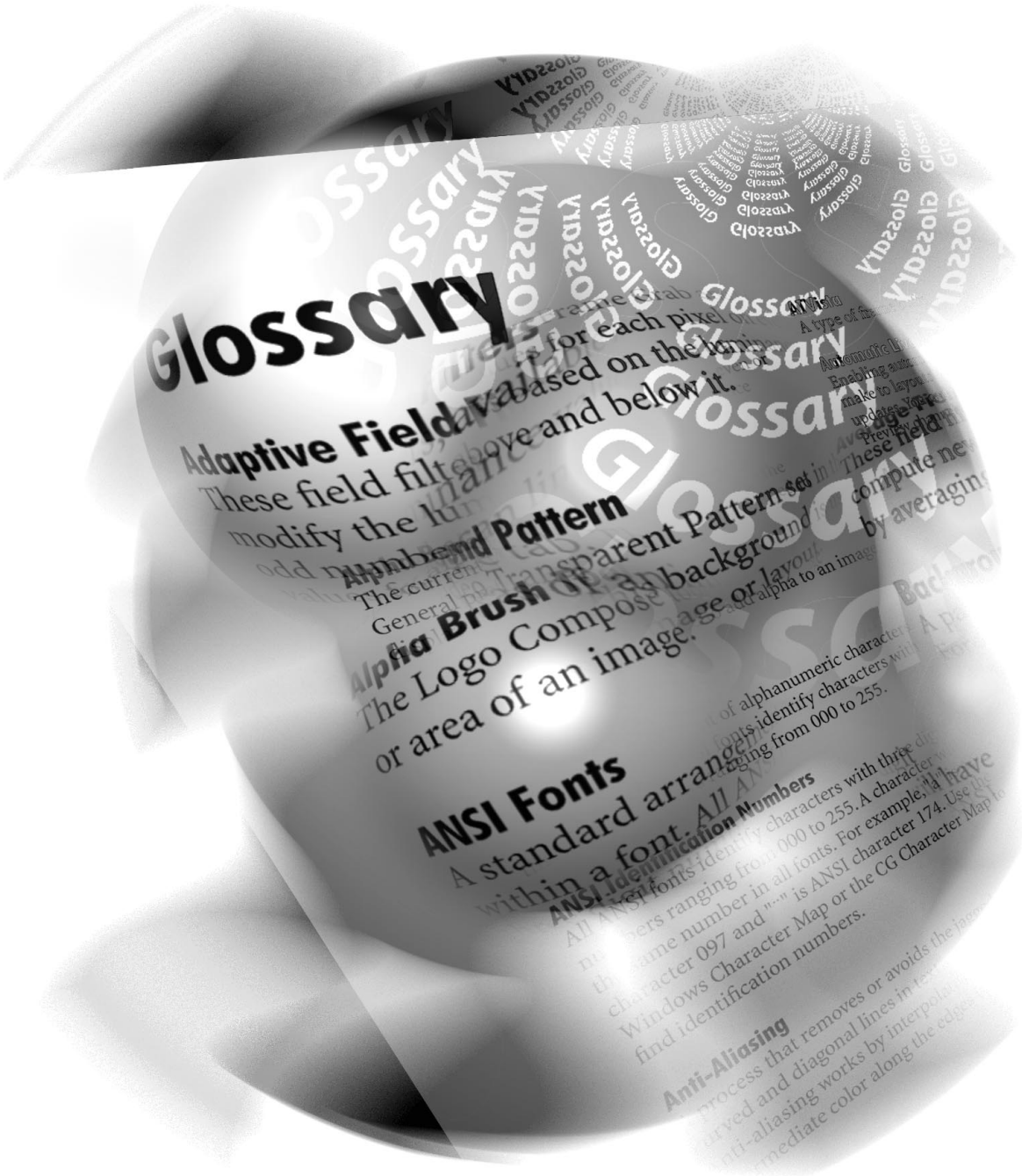
12 Press CTRL+Z to undo the Dodge tool. Press CTRL+Y to redo it.

13 Press CTRL+C to copy the N, then press CTRL+V to paste it.

14 Press CTRL+SHIFT+ALT+V to select the Move tool and move the pasted N toward the top of the image.

15 Press CTRL+SHIFT+C to crop to the selected N.

Glossary


Glossary
Adaptive Field
These field filt
modify the lu
odd n
Alpha Brush
The Logo Compose
or area of an image.
ANSI Fonts
A standard arrange
within a font. All
ANSI Identification Numbers
Anti-Aliasing

2D

See Two-Dimensional Space.

3D

See Three-Dimensional Space.

10 Edges

In CG: One of seven available type styles containing face, up to ten edges, shadow, and depth text elements.

.eps

The most common form of a vector-based image. Objects in vector-based images are described mathematically, based on various specified points, such as the four corner points of a rectangle.

.fnt

See Inscriber Fonts.

.ipt

An Inscriber image format for files created in Paint. .ipt files are 32-bit and contain alpha information.

.lgo

An Inscriber image format for 1-, 16-, or 32-bit images with alpha.

.ttf

See TrueType Fonts.

.via

An Inscriber animation format. Created by FX and Viabuilder.exe.

A

Adaptive Field Filters

In CG, Frame Grab, and Logo Compose: Video cleanup filters that modify the luminance values for each pixel on even or odd numbered scan lines based on the luminance values for the pixels directly above and below.

Alpha

Transparency in video images. In Logo Compose, the alpha channel contains all of the details on the video transparency of the image.

See also Transparency.

Alpha Adjustment Filters

In Logo Compose: Inscriber filters that allow you to manipulate the video transparency of your images.

Alpha Background Pattern

See Video Transparent Pattern.

Alpha Channel

In Logo Compose: The channel that defines the visible and transparent areas of images used in CG/S. Logo Compose allows you to modify the image alpha channel.

Alpha Memory Tool

In Logo Compose: A tool that allows you to restore all or a portion of the original alpha channel of an image. This is possible because the original alpha channel is not destroyed when you modify alpha information in Logo Compose.

Alpha Texture

In Logo Compose: A type of texture applied to the alpha channel instead of to the image.

Alpha Tools

In Logo Compose: Tools used to add alpha to an image. Tools include Alpha Add and Subtract, Alpha Fill, and Alpha Gradient.

Animation

In CG and Sequencer: A type of CG layout or effect event. Layouts are imported into an animation application to move the text and graphic objects around in virtual 3D space, then output in Sequencer.

See also Layout Type.

ANSI

A standard arrangement of alphanumeric characters within a font. All ANSI fonts identify characters with three digit numbers ranging from 000 to 255.

ANSI Identification Numbers

Three digit numbers, ranging from 000 to 255, used to identify specific characters in ANSI fonts. A character usually has the same number in all fonts. For example, "a" is ANSI character 097 and "®" is ANSI character 174. Use the Windows Character Map or the CG Character Map to find identification numbers.

Anti-Aliasing

Removes or avoids the jagged edges on curved and diagonal lines in text or graphic objects. Anti-aliasing works by interpolating pixels of an intermediate color along the edges of an object. CG characters and various Logo Compose tools use anti-aliasing.

Arc

In CG: A quarter of a circle or ellipse. Two edges are flat and form a 90° angle; the third side forms the arc.

Aspect Ratio

The relationship between the width and height of an image (determined by the shape of the individual pixels). Changing the aspect ratio can distort the image (for example, it can turn a circle into an oval).

ATVista

A brand of frame buffer.

Automatic Live Updates

A Program/Preview palette setting that automatically sends any changes you make directly to the channels enabled for live updates. You can set the updates for the Program and Preview channels.

Average Field Filters

In CG, Logo Compose, and Frame Grab: Video cleanup filters that compute new data for even or odd numbered scan lines by averaging each scan line with the line above.

B

Background

In CG: A pattern, color, image, or incoming video signal. Foreground objects, such as text and graphics, are placed on top of the background.

In Logo Compose: Images created in Logo Compose, to be used in CG behind other text and graphic objects.

Background Color

In CG: Color used as a secondary color for gradients. You can also use the background color as a secondary color choice when applying color to an element. If you hold down the ALT key, the background color is applied instead of the foreground color.

Contrast with Face Color.

Baseline

In CG: The invisible line on which text characters rest. Characters like "a" or "c" rest on this line; characters like "g" and "y" descend below this line.

Bevel

In CG: With the Classic Inscriber type style, a bevel is a shaded edge on text or rectangular objects created using lighting effects to provide a three-dimensional feel. Beveled edges have different style options for text and rectangular objects.

With additional type styles, a bevel is a color option you can apply to individual text elements that displays a two color gradient plus transparency.

Bitmap

An image file format that describes the position and color value of each of its pixels. These pixels are arranged in a grid, or raster. Since a bitmap is defined by the number of pixels it contains, increasing its size can distort the image. Bitmaps are also known as raster images.

Logo Compose: The channel that stores all of the blue information in an image.

Blur Filter

In CG, Logo Compose, and Frame Grab: A distortion filter that mildly blurs the frame grab, or texture it is applied to with a 3x3 convolution filter.

Body Depth

In CG: A text element that adds a hard, extruded edge to the existing combined face, edge, and face depth elements. Only available with the Recessed type style.

Bounding Box

In CG and Logo Compose: A rectangle that encloses the maximum dimensions, or extent, of a graphic object.

Brightness & Contrast Filter

In Logo Compose: A color adjustment filter that adjusts the brightness and contrast of all pixel values in the image at once, including highlights, shadows, and midtones.

Brush-Based Tools

In Logo Compose: Tools that let you use brush attributes to perform non-painting tasks, such as cloning or alpha memory. All of the settings from the Brush tab are used by brush-based tools.

Brush Styles

In Logo Compose: Brush tab settings that control the appearance of Logo Compose tool strokes. The Hard-Edge style applies the tool as if it were a pencil. The Soft-Edge style applies the tool as if it were a brush. The Soft-Edge Buildup style applies the tool as if it were an airbrush.

Burn Tool

In Logo Compose: An image-editing tool used to darken an image by moving pixel color values towards their minimum.

Contrast with Dodge Tool.

C

Cache

A specialized area of memory that improves a computer's performance by storing frequently accessed information.

Calibration

The process of matching the output on your computer monitor to your video output so that colors look the same on both monitors.

Canvas Size

In Logo Compose: The size of your painting area. Your canvas size can be larger or smaller than your image size. If your canvas size is smaller than your image size, some of the image is clipped. If your canvas size is larger than your image size, an empty area appears around the image.

See also Image Size.

Capture

In Frame Grab: An action that allows you to capture or grab a frame from a video feed.

Center Tab

In CG: A tab alignment option that evenly distributes text characters around the horizontal center of the layout.

Center Vertically

In CG: A text alignment option that evenly distributes text lines around the vertical center of the layout.

CG

CG/S module that acts as a full-featured character generator, allowing you to create still, roll, crawl, and reveal layouts for display to video. CG layouts can also be exported to an animation application such as FX for 3D effects.

CG Effects

See Effect Event.

Channel

In Logo Compose: The storage location for color and transparency information in an image. Each layer in an image has four channels: red, green, blue, and alpha. Each channel stores information about one aspect of the image. The red, green, and blue channels store all of the color information for the image. The alpha channel stores all of the transparency information for the image. Individual channels are represented by monochrome images.

Channel Ripple

In Sequencer: An option that allows you to send an Event List to a multiple frame buffer system, cycling through each frame buffer as the events are sent to video. For example, in a three frame buffer system, the first frame buffer takes the first event, the second frame buffer takes the second event, the third frame buffer takes the third event, the first frame buffer takes the fourth event, and so on.

Character

In CG: An alphanumeric symbol that is part of a font set and appears on the screen.

Character Generator

See CG.

Character Height

In CG: The distance from the lowest possible point for a descending character (i.e. "j" or "g") to the highest possible point for an ascending character (i.e. "M" or "h") in a font set.

Character Width

In CG: The width of a CG character, measured as a percentage of normal width. The default width (100%) is based on the current font height.

Chroma

The purity or intensity of a color.

See also Chrominance.

Chroma Antialiasing Filter

In Logo Compose: A video cleanup filter that smooths image features that cause flickering bands of false color (due to color signal encoding in NTSC) during broadcast.

Chrominance

Amount of pure color. Chrominance works in conjunction with luminance, which is the shade or value of the color. For example, when you look at a red ball your eyes do not see it as having many colors but as having many shades of red. The red you see is the chrominance of the ball and the shades of red are the different luminance values.

Classic Inscriber Type Style

In CG: One of seven available type styles consisting of three elements: face, edge, and shadow. The Color & Texture tab adjusts format settings.

Cleanup

In Logo Compose: The process of using Logo Compose tools and filters to remove alpha and make other adjustments to a logo or image.

Clip Art

Images commonly available from third-party sources that can be quickly inserted into an image.

Clipped-Corner Rectangle

In CG: A rectangle that has its corners clipped flat at a 45 º angle. The size of the clipping region is set by the Edge value.

Clone Fill Tool

In Logo Compose: An image editing tool that fills with image data, allowing you to quickly copy large areas of an image or tile image elements.

Clone Tool

In Logo Compose: An image editing tool that paints with image data, allowing you to copy areas of an image to other locations on the image.

CLR button

A Program/Preview palette button that clears the current channel.

CMYK

An acronym for Cyan, Magenta, Yellow, and Black. All printed images are a combination of these four colors. CMYK is not relevant to video display, but computer-generated images must be converted to CMYK if they are to be printed.

Color Adjustment Filters

In Logo Compose: Inscriber filters that alter image color by mapping new ranges of pixel values over existing ranges.

Color Balance Filter

In Logo Compose: A color adjustment filter that adjusts the color range of an image's shadows, midtones, and highlights one at a time.

Color Blend

See Gradient.

Color Chip

In CG: A small colored square on the Color & Texture tab that identifies a selected color.

Color Correction

In Logo Compose: A means of adjusting the color of an image. Paint has several color correction filters that let you perform complex adjustments to the color of an image.

Color Emboss

In Logo Compose: A distortion filter that makes an image appear embossed by adding highlights and shadows based on the edges in the images, while retaining color information.

Contrast with Emboss.

Color Gamut

See Gamut.

Color Group

In CG: A set of color and texture formatting information, located on the Formatting palette, for text and graphic objects. Text and graphic objects do not share color groups. Color group options can be changed using the Color & Texture tab.

Contrast with Style Group.

Color Model

A mathematical representation of the full set of colors available for NTSC or PAL encoding, such as the RGB, HSV or HLS color models. While the colors the models represent remain the same (that is, yellow remains yellow), the method they use to represent those colors may differ.

See also RGB Color Model, HLS Color Model, and HSV Color Model.

Color Picker

In CG: An eye-dropper tool that copies colors from anywhere on the screen.

Color Ramp

In CG: A color option you can apply to individual text elements that displays color, transparency, and sheen gradients. Available with all type styles except Classic Inscriber.

Color Selection Box

In CG: A box located on the Color & Texture and Background tabs that displays all the colors you can define, given the current color slider value.

Color Selector

In CG: A set of cross-hairs located in the Color Selection Box that you can use to pick a specific color from the Color Selection Box.

Color Slider

In CG: A bar located beside the Color Selection Box that shows the color values of the selected color model component.

Complex NTSC/PAL Legalize

In Logo Compose: A legalize filter that legalizes the colors of images that contain gradient effects. Every pixel is scanned and illegal colors are replaced with the closest NTSC or PAL legal color along the gradient transition.

See also Legalize Filters. Contrast with Simple NTSC/PAL Legalize.

Component Video

Video comprised of multiple signals. It is usually taken to mean that there are separate signals for chrominance and luminance. RGB is also a component signal, with separate signals for red, green, and blue pixel values.

Contrast with Composite Video.

Composite Video

Video comprised of a single signal for luminance and chrominance values.

Contrast with Component Video.

Compositing

In CG: Manipulates the transparency of an object based on the colors in the textures. The selected channel acts as a mask for the alpha channel. For example, if you composite using red, the amount of red in a pixel determines how transparent the pixel becomes.

Control Point

In CG: Point on a polygon or spline that changes an object's shape. A single spline or polygon can contain up to 64 control points. Polygon control points define an object's boundaries while spline control points define tangents to the curve.

Corner Logo

A logo found in a corner of the screen, generally for the purposes of corporate identification or program rating. Corner logos are also known as video bugs.

Crawl

In CG and Sequencer: A layout or transition in which text appears on a single line and moves horizontally from one side of the screen to the other. You can add additional lines of text to a crawl, but each line behaves independently. In Sequencer, a crawl is recognized as an effect event.

See also Layout Type.

Crop

In Logo Compose: Cuts off the edges of an image and canvas, reducing its size.

Cycle Checkbox

In Sequencer: An option that enables event list looping. You can only loop an entire event list, not part of an event list.

D

Default Template

In CG: The template initially used for all new layouts, most commonly a blank template with standard settings. You can save modifications to the default template to better suit your environment.

Depth

In CG: A text element that adds a hard extruded edge to the combined face and edge elements.

DigiMix

A brand of frame buffer.

Display Latency

The lag time between first accessing a rendered file and having it appear on screen. Latency is caused by the time required to read rendered files from disk or from a remote location, the time to decompress files, and the time to transfer files to the frame buffer card. Display latency varies from system to system, and with network activity level.

Distort

In CG: An effect that changes the face shape of individual text characters along the X and Y axes. Available with all type styles except Classic Inscriber.

Distortion Filters

In Logo Compose: Inscriber filters that let you apply special effects to your images to give the impression of distortion or a different medium.

Dither Filter

In CG and Frame Grab: A filter that removes contouring in imported graphics with a generalized noise filter.

Dodge Tool

In Logo Compose: An image-editing tool used to lighten an image by moving pixel color values towards their maximum.

Contrast with Burn Tool.

Drop Shadow

In CG: An effect where text or graphic objects appear to have a three-dimensional shadow extending from the object to a specified distance behind the object. Drop shadows apply color gradients from the front to the back of the shadow.

Contrast with Extruded Shadow.

E

Edge

In CG: The outline of a text character or graphic object.

Edge & Sheen

In CG: A text element that creates one sheen highlight for each of four edges. Only available with the Sheen type style.

Edge Over Face

In CG: One of seven available type styles consisting of face, edge, shadow, and depth text elements. Pixels are added inside and outside the face edge.

Recessed

In CG: One of seven available type styles consisting of face, edge, outline edge, face depth, body depth, and shadow text elements. You can set complex, layered edging options.

Edging

In CG: An effect where text characters or graphic objects are outlined with pixels of color in a sharply defined pattern. Text and graphic objects have different edging options.

Effect Event

In Sequencer: Image files created in CG that include motion effects. Sequencer recognizes four types of effect events: rolls, crawls, reveals, and animations. Applying a transition (such as a wipe, dissolve, or louvre) to an effect event can permanently remove the motion effects from your event.

See also Layout Type.

Element

In CG: A text character, line of text, or graphic object.

Elliptical Brush

In Logo Compose: A standard brush with a round or oval shape, used to paint or edit an image.

Eliminate

In CG: A color option that does not draw the text element at all. The selected text element does not cast a shadow and has no attributes because it does not exist. However, all remaining text elements cast a shadow. Available with all type styles except Classic Inscriber.

Embellished

In CG: One of seven available type styles consisting of face, edge, shadow, and depth text elements. Text elements can appear invisible while covering layers underneath.

Emboss

In Logo Compose: A distortion filter that makes an image appear raised or embossed by adding highlights and shadows based on the edges in the image. Color information is suppressed.

Contrast with Color Emboss.

Embossed Edging

In CG: An edging effect where text characters appear to be pushed out from the background in a CG layout.

Event

In Sequencer: A layout that has been combined with transition or motion effect information and added to the Play List or Event List.

See also Transition Event and Effect Event.

Event Attributes

In Sequencer: The event number, event label, event type, render location, and wait time.

Event Duration

In Sequencer: The duration of the transition for transition events; the duration of the effect for effect events.

Event List

In Sequencer: The workspace window that lists all the events in the current job.

Event Name

See Label.

Event Number

In Sequencer: The position of an event in the event sequence. The event number is displayed in the Event List and can be displayed in the Play List.

Expand/Collapse Arrow

In Sequencer: Expands or collapses the view for the selected groups in the Event List and the Play List.

Extruded Shadow

In CG: An effect where CG text and graphic objects appear to have a three-dimensional shadow extending from the element to a specified distance behind the element. Extruded shadows apply color from the top to the bottom of the shadow.

Contrast with Drop Shadow.

Eye-Dropper

See Color Picker.

F

Face

In CG: The main body of a text character or graphic object, sometimes known as foreground.

Face Color

In CG: The color that appears in the main body of a text character or graphic object. The face color is identified by the face color chip on the Color & Texture Tab.

Contrast with Background Color.

Face Depth

In CG: A text element that adds a hard, extruded edge to the existing combined face and edge elements. Only available with the Recessed type style.

Field

One half of a complete video frame. A field will contain every second line in an image, either all odd scan lines or all even scan lines.

See also Interlaced Fields.

Field Filters

See Video Cleanup Filters.

File Format

See Image File Format.

Fill Pattern

See Video Transparent Pattern.

Fill Tools

In Logo Compose: Tools that let you quickly cover portions of an image with color, alpha, image data, or texture.

Filters

In CG, Logo Compose, and Frame Grab: Filters that operate on the interlaced fields in a captured image are known as video cleanup filters. Other filters that manipulate, modify, and refine your image in complex ways include alpha adjustment filters, color adjustment filters, distortion filters, and legalize filters. Alpha filters work only on one channel of an image, while the others affect the entire image. Not all filters are available in all modules.

First In Point

In Sequencer: The specified starting frame for a group.

Flat Edging

In CG: An edging option for graphic objects. Flat edging gives objects flat beveled edges.

Font

In CG: A complete set of type of one face or style. In CG/S, Inscriber recommends you use TrueType fonts.

Font Height

See Character Height.

Font Manager

In CG: An application that builds and maintains the Inscriber font database. You can use the Font Manager to convert TrueType fonts to Inscriber fonts.

Footprint Removal Field Filters

In CG and Frame Grab: Video cleanup filters that combine the average field filters and adaptive field filters. First, the average field filter is applied to the selected field, then the adaptive field filter is applied to the other field.

Foreground

In CG: The layers where text and graphics appear (as opposed to background, where the video source, image, color or pattern appears).

See also Face.

Contrast with Background Color.

Format Sample

In CG: A sample of what the current style and color formatting options look like when applied to a text or graphic object. The format sample is located on the formatting palette.

Formatting Palette

In CG: The floating palette that contains the text and graphic tools, the format sample, color groups, and style groups.

Frame Buffer

A hardware card that stores frame information and then outputs it to video. Inscriber products interact with the frame buffer to add information to the video frame stored on the frame buffer to create complex effects.

Frame Grab

CG/S module that captures individual frames from a video feed.The image can be filtered in Frame Grab, and then used as a background for layouts, or cleaned up further in Logo Compose using a variety of tools and filters.

Full Alpha

In CG: A color option that draws text elements with 100% transparency. The text element casts a shadow while its face is invisible. Available with all type styles except Classic Inscriber.

FX

Inscriber application that takes two-dimensional CG text and graphics and creates three-dimensional animations.

G

Gamut

The available colors that can be displayed on a particular device (video output or computer monitor). The RGB color gamut describes the colors available in video and on the computer. Orange and yellow colors are in limited supply in the RGB gamut, making it difficult to select variations of yellow and orange.

Gaussian Blur

In Logo Compose: A distortion filter that softens an image by applying a weighted average (along a Gaussian or bell-shaped curve) of the pixels where significant color transitions occur.

General Purpose Interface Trigger

See GPI Trigger.

Ghost Checkbox

In CG: An option that draws text elements without color, texture, and transparency. Text elements cast a shadow without being visible. Only available with the Embellished type style.

Glow

In CG: A text element that creates a highlighting effect centered directly behind the text tube. Only available for the Neon type style. Increasing the thickness of the Neon value intensifies the radiating glow effect.

Glow Edge

In CG: An edging effect where a text character is outlined with pixels of color in a diffuse pattern.

GPI (General Purpose Interface) Trigger

In Sequencer: A simple electro-mechanical cueing trigger that uses a contact closure.

GPI Trigger Type

In Sequencer: A trigger type setting used with a GPI trigger.

Grab Handle

In Logo Compose and CG: Small black squares on the corners and midpoints of the bounding box outline of a selected object. Click and drag the grab handles to change the size of an object.

Gradient

In CG and Logo Compose: A blend from one color to another, or from one level of transparency to another.

Gradient Angle

In CG: A setting that determines whether a gradient blend is applied from the top to the bottom of the text or graphic object or at another angle.

Gradient Blend

See Gradient.

Gradient Position

In CG: Determines how much of an object is covered by a gradient blend. Blends can cover the entire object, or just a portion of the object.

Graphic Object

In CG: A shape, such as a rectangle or circle, or a picture, such as a logo, in a layout. Graphic objects appear on separate planes from the text in your layouts and always appear behind any text that shares the same layer. Each graphic object consists of three parts: face, edge, and shadow.

Graphics Plane

In CG: The plane containing all of the graphic elements for the CG layer. In CG, each layer is divided into a text plane and a graphics plane. The graphics plane is always located under the text plane for the layer.

See also Layer.

Graphics Tablet

A device for controlling the cursor, used instead of a mouse. A pen is used as a drawing device on the tablet, and pen motions are translated into cursor movement on the interface. Unlike a mouse, a graphics tablet is pressure-sensitive.

Grayscale

An image that is represented by up to 256 shades of gray. In a grayscale image, every pixel has a brightness value ranging from 0 (black) to 255 (white). The monochrome filter converts a color image to a grayscale image.

Green Channel

In Logo Compose: The channel that stores all of the green information in an image.

See also Channel.

Group

In Sequencer: A container used to group events with common characteristics.

Group Attributes

In Sequencer: Characteristics such as group name, group number, and trigger type, used to define a group.

Group Button

In Sequencer: A button on the Run tab that, when selected, lets you use the keyboard to preview or take an entire group by its group name.

Group Header

In Sequencer: The header visible in the Event List containing all the information for a group.

Group Total Duration

In Sequencer: The total duration of all events in a group.

GUI (Graphical User Interface)

See Interface.

H

HDTV (High Definition Television)

One of several video standards that determines the resolution and aspect ratio of images. The HDTV aspect ratio is 16:9.

HLS Color Model

A color model that describes colors in terms of hue, lightness, and saturation. Hue values range from 0 to 359 degrees, arranged in spectrum order from red through blue to magenta. Saturation determines the brightness of the color with a maximum value of 100%. Lightness describes how close the color falls to pure black or white. White has a lightness value of 100% and black has a lightness value of 0%.

Horizontal Center Marker

In CG: A guideline that marks the horizontal center of your CG layout. It is not included in image files rendered to disk.

Horizontal Flip Filter

In CG, Logo Compose, and Frame Grab: An image filter that flips the image left to right. In Logo Compose, the horizontal flip filter is accessed through the Transform tab.

Horizontal Panel

In CG: A rectangle with bevels on the top and bottom edges.

Horizontal Risetime Filter

In Logo Compose: A video cleanup filter that blurs each scan line when adjacent pixels have very different luminances in the horizontal direction. This filter reduces the flicker that would be caused by such sharp differences in luminance.

HSV Color Model

A color model that describes colors in terms of hue, saturation, and value. Pure colors (hues) are measured in degrees, from red at 0 degrees through blue to magenta at 359 degrees.

Decreasing the saturation without changing the value is the same as adding white pigment to a pure color. Decreasing the value without changing the saturation is the same as adding black pigment to a pure color.

Hue

A numeric representation of a pure color in a particular color model.

See also HLS Color Model and HSV Color Model.

I

Ignore Alpha

In CG: An option on the Background tab that strips the alpha information from an imported bitmap image.

Illuminator Pro

A brand of frame buffer.

Image

In CG: Images can be used as logos, textures, and backgrounds.

In Frame Grab: You can grab an image from a video feed.

In Logo Compose: You can edit and add alpha to an image.

Image Alpha

See Alpha Channel.

Image Attributes

A list of characteristics about a source file, such as its resolution, file size, name, and keywords.

Image Capture

See Frame Grab.

Image Date

The creation or last modification date of a source file.

Image File Format

The particular storage format for image information. CG/S can import images stored in most common bitmap formats.

Image Filters

Filters that operate on the alpha and color channels of an image.

See also Filters.

Image Resolution

The size and color depth of the source file.

Image Size

The actual size of an image. Your image size can be larger or smaller than your canvas size. If your image size is larger than your canvas size, some of the image is clipped. If your image size is smaller than your canvas size, an empty area appears around the image.

Image Thumbnail

A small, rendered bitmap representing a layout, event, or other full-size image. A thumbnail is used to give a good representation of what a source file looks like without producing a high quality image. Thumbnails are used for preview purposes and image selection.

Image Type

See Image File Format.

In-Between

See Frame.

In Point

In Sequencer: The point specifying when Sequencer takes an event.

Inscriber Filters

See Filters.

Inscriber Fonts

In CG: Fonts created for online display before the widespread use of TrueType fonts. Inscriber fonts are created using Inscriber Font Manager and are only accessible in CG.

See also TrueType fonts.

Interface

The commands and graphical display formats provided by a computer program that allow you to communicate with and use the program. Inscriber uses a graphical user interface (GUI) to provide a picture-oriented way of interacting with the program.

Interlaced Fields

A system of video scanning where an image is split into odd- and even-numbered lines, which are transmitted as two separate fields slightly offset in time. All video signals contain interlaced fields, and any image captured from video flickers because of the time offset.

See also Field and Video Cleanup Filters.

Interpolate Field Filters

In CG, Logo Compose, and Frame Grab: Video cleanup filters that compute new data for even- or odd-numbered scan lines based on the scan lines directly above and below.

Invert Color Filter

In Logo Compose: A color adjustment filter that inverts the value of each component (HSV, RGB, or HLS) of the colors in your images. The new values are equal to the full-scale value of each component minus the original value.

Invert Key Filter

In Logo Compose: An alpha adjustment filter that reverses the opaque and transparent areas of your image. For example, if an area is 80% opaque and 20% transparent, it becomes 20% opaque, 80% transparent.

Ittest.exe

A program provided with CG/S that allows you to use the Inscribe.ini settings to verify whether CG/S should be seeing the time codes.

J

Job

The entire .ins file, including all transition and effect events, trigger and timing information. The current job is always displayed in the Play List, or job strip, and in the Event List in Sequencer.

Job List

See Play List.

K

Kerning

In CG: The spacing between two adjacent text characters.

Contrast with Leading.

Key

The alpha signal as seen on the video output monitor.

See also Alpha.

L

Label

In Sequencer: The name given to a transition event. The label, or event name, is displayed in the Event List and can be displayed in the Play List.

Label Button

In Sequencer: A button on the Run tab that enables you to use the keyboard to preview or take an event or group by its name.

Last Out Point

In Sequencer: The specified ending frame for a group.

Layer

In CG: A level of the CG workspace that allows you overlap text and graphic objects. There are 10 main layers, with each main layer divided into separate text and graphic planes. Text planes always appear on top of their respective graphic planes.

See also Text Plane and Graphics Plane.

Layout

In CG: The overall appearance of an image created in CG, consisting of three main elements: background, text, and graphic objects.

Layout Type

In CG: A motion setting that determines how your work displays to video. CG/S supports four types of layouts: stills, crawls, rolls, and reveals. Stills display static text and graphics. Crawls move text and graphics horizontally across the screen. Rolls move text and graphics vertically on the screen. Reveals display text and graphics in sequential order.

See also Effect Event.

Leading

In CG: The space between lines of text in a layout. Leading is measured from baseline to baseline.

Contrast with Kerning.

Left Tab

In CG: A tab alignment option where the left-most text character of the line is aligned with the tab, and the rest of the characters flow to the right from the tab stop.

Legalize Filters

In Logo Compose: Inscriber filters that convert illegal colors (image colors outside the broadcast range) to legal colors (colors within the broadcast range). If colors are not legalized before they are broadcast as an NTSC or PAL signal, they will produce inferior results and possibly even technical problems.

See also Video Legalize Filter.

Level Curves Filter

In Logo Compose: A color adjustment filter that adjusts the tonal range of an image at any point along a 0-255 scale. This allows for smoother adjustments to the tonal value of an image, replicating high-end color correction systems.

Levels Filter

In Logo Compose: A color adjustment filter that makes gradual adjustments to the brightness, contrast, and midtones of an image.

lgo Format

See .lgo.

Lightness

An element of the HLS color model. Lightness determines the brightness or darkness of a color. A lightness value of 0% is black; a value of 100% is white. For maximum saturation, lightness must be set to 50%.

See also HLS Color Model.

Line Art

See Clip Art.

Live Playlist Checkbox

In Sequencer: A Run tab option that turns live Play List updates on and off.

Live Update Checkbox

In Sequencer: A Run tab option that turns live Event List updates on and off.

Live Video

See Video Signal.

Live Video Button

In Frame Grab: Switches to the online monitor to view the video signal.

Locked Lines

In CG: A setting that groups lines of CG text together. If you reposition a line, all subsequent lines are repositioned in relation to the first line.

Log Event

In Sequencer: Options from the Play List menu that add an event to a sequence or Play List. Log Event Up adds an event above the selected event, and Log Event Down adds an event below the selected event.

Logo

In CG: A bitmap image displayed as a graphic or inserted in a text line. If you use a 16- or 32-bit image as a logo, CG/S can maintain the alpha information, creating a transparent, non-rectangular logo.

In Logo Compose: A bitmap image that includes alpha information. If you use a 16- or 32-bit image as a logo, CG/S can maintain the alpha information, creating a transparent, non-rectangular logo.

Logo Cleanup

See Cleanup.

Lower Third

In CG: A layout template that places text and graphic objects in the bottom third of the screen only.

Luminance

The shade or value of a color. Luminance works in conjunction with chrominance, which is pure color. For example, when you look at a red ball your eyes do not see it as having many colors but as having many shades of red. The red you see is the chrominance of the ball and the shades of red are the different luminance values.

Luminance Fill

In Logo Compose: A painting tool that fills a layer or selection based on color values in the image. You can specify in the Tolerance field how close color values need to be in order to be filled in.

M

Manual Trigger Type

In Sequencer: A group trigger type, used when you need to trigger events manually.

See also Trigger Type.

Marching Ants

See Marquee and Selection.

Mark In and Mark Out Points

In Sequencer: The points set in the Trim Editor to mark the first and last frames of a clip to be played in a sequence.

See also Trim Editor.

Mark NTSC/PAL Illegal Colors

In Logo Compose: Legalize filters that identify areas of your image that have illegal colors. These allow you to see what sections of an image need to be legalized.

Marquee

In Logo Compose: The dotted line that denotes a selection boundary.

Mid-Take

In Sequencer: Specifies any point between the in and out points for an event take.

Minimum Total Duration

In Sequencer: A specific event's duration. For example, if a crawl is 60 frames long, CG/S waits until the crawl has played at least 60 frames before taking the next event.

Mix Through to Key Checkbox

In CG: An option that mixes transparency through to the video signal instead of to the existing background. When Mix Through to Key is disabled, text elements with transparency display the background layer.

Monochrome Filter

In CG, Logo Compose, and Frame Grab: A color adjustment filter that performs a luminance conversion. Images are converted to 8-bit grayscale.

See also Grayscale.

Motion Blur Filter

In Logo Compose: A distortion filter that blurs an image along a straight line to simulate motion.

Multiple-Board System

A system with more than one frame buffer.

N

Neon

In CG: One of seven available type styles consisting of tube and glow text elements that together create a neon effect.

News Edit Registry

In CG: A database that stores lists of frequently accessed text for use in online environments, such as sports scores or news casts. It lets you quickly change the layout text without affecting the formatting of a line, and without having to check the spelling of text each time you enter it.

Noise Filter

See Dither Filter.

Non-Keyed Cuts

Cut transitions without a key or alpha channel.

Non-Tab-Constrained Line

In CG: A line of text that is free to move horizontally and vertically.

Contrast with Tab-Constrained Line.

NTSC (National Television Standards Committee)

One of several standards developed for television broadcast transmission and reception. An NTSC TV image has 525 horizontal scan lines per frame. Each half-frame screen scan takes approximately 1/60 of a second, and a complete frame is scanned every 1/30 of a second (30 frames per second). Typically, this standard has been adopted in countries where the power-line frequency is 60 Hz, to allow a simple relationship to the scan rate.

Number Button

In Sequencer: A button on the Run tab that, when selected, lets you use the keyboard to preview or take an event by its number.

O

Offline

Events are not pre-rendered. Any takes you do require on the fly rendering in order to be output.

Offline Take

A take made while CG/S is offline.

Offset Shadow

In CG: An effect where CG text and graphic objects have a shadow that appears at a specified distance below the objects, as if the characters are suspended above a solid surface.

Contrast with Soft Shadow.

Online

All events are pre-rendered and ready for immediate output as soon as you run a sequence or do a take.

Online Manager

A CG/S application that renders all events before going online.

Online Monitor

The video output monitor.

Online Output Directory

The folder or folders where all rendered events for the current sequence are stored.

Online Take

A take made while CG/S is online.

Online Toggle Button

Switches between offline and online modes.

Opacity

In CG and Logo Compose: The degree to which background information cannot be seen through a graphic object, text, or image. An object with 0% opacity is transparent; an object with 100% opacity is completely opaque (you cannot see through it).

Contrast with Transparency.

Out Point

In Sequencer: The point specifying when the current event ends and Sequencer takes the next event.

Outline Edging

In CG: An edging effect that draws a hard-edged outline around each character. Only available with the Classic Inscriber type style.

A text element that draws a hard edge to the existing face, edge, face depth, and body depth elements combined. You can apply multiple colors and transparency values to the outline edge. Only available with the Recessed type style.

Oval

In CG: An elliptical or circular graphic object.

P

Paint

Inscriber application that lets you create, edit, retouch, and add alpha to bitmap images and Paint files. Paint is only available with VMP Studio.

Paint File Format

See .ipt.

PAL (Phase Alternating Line)

One of several video standards developed for television broadcast transmission and reception. A PAL TV image has 625 horizontal scan lines per frame. Each half-frame screen scan takes approximately 1/50 of a second, and a complete frame is scanned every 1/25 of a second (25 frames per second). Typically, this standard has been adopted in countries where the power-line frequency is 50 Hz, to allow a simple relationship to the scan rate.

Palette Files

See .aco.

Palette Pop-Ups

In Logo Compose: The pop-up tool selection menus that appear when you place the pointer on top of a tool on the Tool palette and hold down the left mouse button. Tools that have pop-ups have a small black arrow at the bottom right corner of the tool icon.

Pattern

In CG: A repeating design that adds visual interest to backgrounds. Patterns can be selected on the Color & Texture tab. You can modify the size, color gradient, and video transparency of patterns in your layouts.

PC Clock Trigger Type

In Sequencer: A group trigger type that uses the 24 hour PC (personal computer) clock as a time source for takes.

Perspective

In Logo Compose: An element of drawing on a two-dimensional surface so that objects give the impression of relative position, size, and lighting angles. Perspective can be applied to an object in Logo Compose by using the Freeform tool or Depth fields on the Transform tab.

PGM Button

A Program/Preview palette button that sets automatic online updates for the current Program channel.

Pickle Device

See GPI Trigger.

Pixel

A single sample of picture information. Pixel is short for "picture cell".

Pixel Shape

The shape of a pixel as determined by its proportion of length to width. Pixel shape differs between computer and video output. In computer or print media, pixels are square. In video and television media, pixels are slightly rectangular.

Pixelize Filter

In Logo Compose: A distortion filter that replaces groups of pixels in an image with the average color values of the pixels in each group.

Play Direct Button

In Sequencer: Takes the entire event list in sequence while in online mode. In offline mode, Play Direct runs the Online Manager and takes the entire event list in sequence.

Play List

An image palette that displays each thumbnail in the current job file. The Play List is visible in all CG/S modules.

Pluge Test

Part of the SMPTE video test pattern, generally used when calibrating your output monitor and your frame buffer.

Polygon

In CG: An irregularly shaped object with four or more sides. The shape is determined by a set of control points, each of which defines a boundary of the object.

Posterize Filter

In Logo Compose: A color adjustment filter that reduces the number of colors in an image. You specify the number of tonal levels (brightness values) for an image, and the filter maps pixels to the level that most closely matches the original value.

Predefined Images

In Sequencer: Images that you can display by clicking one of the programmable Shot Box buttons. Often used for emergency or test situations where you need quick access to images.

Preserve Luminance

In Logo Compose: An option with the color balance filter that, when selected, automatically compensates for changes in luminance caused by increasing or decreasing color values.

Pressure Sensitivity

See Graphics Tablet.

Preview Board

A frame buffer dedicated to the Preview channel.

Preview Button

In Sequencer: A button on the Run tab that loads the current event into the Preview channel.

Preview Channel

The video channel used to preview video before it goes live.

Program Board

A frame buffer dedicated to the Program channel.

Program Channel

The video channel to be broadcast or to be sent to tape. In multiple frame buffer systems, you may have several Program channels.

Program/Preview Palette

The CG/S component that allows you to view the contents of the Program and Preview channels.

PRV Button

The Program/Preview palette button that, when selected, sets automatic online updates for the Preview channel.

Q

Quick Preview
A preview of a take made while CG/S is offline.

Quick Take
A take made while CG/S is offline.

R

Radial Blur Filter
In Logo Compose: A distortion filter that blurs an image around a center point.

Raster Image
See Bitmap.

Rectangle
In CG: A square or rectangular-shaped graphic object.

Rectangular Brush
In Logo Compose: A basic tool with a square or rectangular shape, used for painting or editing large areas. The Rectangular brush is also used to create calligraphic effects and diamond patterns.

Red Channel
In Logo Compose: The channel that stores all of the red information in the image.

See also Channel.

Redraw
Updates the screen display. Complex layouts or images may take longer to redraw than simpler ones. You can force a redraw by pressing CTRL + D.

Reduce Flicker Filter
In Logo Compose: A video cleanup filter that blurs the image in the vertical direction. This reduces flicker caused by sharp changes in luminance between pixels in the vertical direction.

Registry, Motion Template
See Motion Template Registry.

Registry, News Edit
See News Edit Registry.

Registry, Templates
See Template Registry.

Remove Flicker Filter
In Logo Compose: A video cleanup filter that smooths the image in the vertical direction to remove flicker caused by sharp changes in color in the vertical direction.

Render
Converts information regarding objects or effects to a graphical bitmap form that can be displayed to video. Object information includes shape, color, bevels, and transparencies. Effect information includes keys, transitions, movement, and layering. When you render an event, a temporary file is written to the hard drive and then sent to the frame buffer when you do a take.

This process happens on the fly in offline mode. In online mode, all events are pre-rendered for immediate output when you do a take.

Render Location
In Sequencer: The location where the final events are rendered when you go online. Render locations include RAM, on-board memory (not on all frame buffers), local hard drive, or remote locations.

Rendered File Names
In Sequencer: The file name of an event after it has been rendered. To take events to video, CG/S needs to render the events to separate files. You can edit the names of these rendered files at any time.

Rendered Images
See Rendered File Names.

Repeat Field Filters
In CG, Logo Compose, and Frame Grab: Video cleanup filters that duplicate the even or odd numbered scan lines in an image, replacing the odd or even numbered ones respectively. The image will appear to shift either up or down depending on the filter.

Restoring Alpha

See Alpha Memory Tool.

Retouching

In Logo Compose: The process of removing unwanted elements from an image. For example, if you want to use an image of a cloudscape with two airplanes, but only want to have one of the airplanes in your final image, you can retouch the image to remove the second airplane.

Reveal

In CG and Sequencer: A layout or transition that displays text one line or character at a time. In Sequencer, a reveal is recognized as an effect event.

See also Layout Type.

RGB Color Model

A color model that describes colors in terms of the amount of red, green, and blue light in the signal. The values of the three components are added together to determine the final color. White is defined with red, green, and blue set to full intensity (255); black is defined with red, green, and blue set to zero intensity. Any color definition with equal amounts of red, green, and blue is gray.

Right Tab

In CG: A tab alignment option where the right-most character of a line is aligned with the tab, and the rest of the characters flow to the left from the tab stop.

Roll

In CG and Sequencer: A transition or layout in which text moves vertically up or down the screen. In Sequencer, a roll is recognized as an effect event.

See also Layout Type.

Round Corner Rectangle

In CG: A rectangle that has rounded corners.

Round Edging

In CG: An edging option for graphic objects. Round edging gives objects rounded beveled edges.

Rounded Rectangle

In CG: A rectangle that has all of its edges rounded. If the width equals the height, it becomes a circle. If it is stretched horizontally, the horizontal sides remain flat.

Run Job Button

In Sequencer: A button on the Run tab that takes all the events in your event list in sequence.

S

Safe Title Area

In CG: The area of the video screen where text is legible on a typical television screen. This generally includes the center 80% of the total screen area.

Saturation

The amount of pure color. 100% saturation is pure color, with no black or white mixed in. 0% saturation is a shade of gray, with no hint of color.

See also HLS Color Model and HSV Color Model.

In Logo Compose: A tool on the Tool palette that increases or decreases the size of an object or selection without constraining its proportions.

Scan Line

A single horizontal sweep across the face of a video display by the electron beam that creates the picture. NTSC uses 525 scan lines; PAL uses 625.

Scanned Image

A printed image that has been converted by a scanning device into a graphics file for the purposes of electronic transmission or modification. A scanning device, or scanner, resolves the image into elements of color, light, and shade.

Scrubber

See Preview Toolbar.

Seamless Texture

In Logo Compose: A small texture image that can be tiled endlessly without a visible edge. Some seamless textures may have features that make the repetition obvious, but no image edge is ever visible.

Selection

In Logo Compose: The area of an image that you wish to work on. The selected area is surrounded by a dotted line. Logo Compose offers numerous Selection tools that allow you to select areas of the image.

Selection Channel

In Logo Compose: The Selection channel is only available when you have made a selection in Logo Compose using the Selection tools, and shows you an 8-bit image of the selection.

Selection Contents

In Logo Compose: An export option that exports the contents of the current selection channel as a bitmap image.

Sequencer

CG/S module that manages event output and online control.

Sequencer Workspace

The Sequencer window.

See also Event List.

Shade

See Luminance.

Shadow

In CG: For graphic objects and the Classic Inscriber type style, shadow is the type and style of a text character or graphic object shadow. There are four types of shadows: drop, extrude, offset, and soft.

For all other type styles, shadow is the text element that creates a soft shadow. You can adjust offset, angle, and softness.

Shape

The physical dimensions of an object, such as width, length, and depth.

Sharpen Filter

In CG, Logo Compose, and Frame Grab: An image filter that mildly sharpens the image with a 3x3 convolution filter.

Contrast with Blur Filter.

Sheen

In CG: One of seven available type styles consisting of face, edge & sheen, and shadow text elements. Each of four edges can display a separate sheen highlight.

Sheen also refers to a linear highlight you can apply to text elements. When using type styles with additional edges, such as 10 Edges and Sheen, you can also apply a sheen effect to individual edges. Available with all type styles except Classic Inscriber.

Shot Box Palette

The palette visible in Sequencer designed to give a keyboard method of displaying images in the Media Catalog, Event List, or Play List.

Simple NTSC/PAL Legalize

In Logo Compose: A legalize filter that restricts image colors to those acceptable for broadcast. Every pixel is scanned and illegal colors are replaced with the closest NTSC or PAL legal color.

Single Pixel Brush

In Logo Compose: A brush that adds color or alpha or edits image information a single pixel at a time.

Small Caps

In CG: Lower case letters displayed as reduced-size upper case letters.

Smooth Processing

See Sub-Pixel Processing.

SMPTE

Society of Motion Picture and Television Engineers.

SMPTE Color Bars

A video test pattern, generally used when calibrating your output monitor and your frame buffer.

Soft Shadow

In CG: An offset shadow with a diffuse, fuzzy edge instead of a sharp edge.

See also Offset Shadow.

Source File

The data file where all image information is stored.

Speed

In CG: A parameter used for specifying duration of rolls and crawls in real time instead of specifying duration in frames.

Still

In CG: A static screen image.

See also Layout Type.

Still Graphic Button

In Frame Grab: Toggles the online monitor to view the captured image.

Stop Button

In Sequencer: A button on the Run tab that stops the current take sequence.

Store

Inscriber application that is a searchable database of still images, clips, and animations, that can be used in other Inscriber applications. Only available with VMP Studio and VideoCarte.

Straps

See Lower Third.

Style Group

In CG: A set of font, size, attribute, color, and texture information for text and graphic objects, located on the Formatting palette. Text and graphic objects do not share color groups. Color group options can be changed on the Size & Attributes and Color & Texture tabs.

Contrast with Color Group.

Sub-Pixel Processing

In CG: Makes rolls appear smoother at a wider variety of speeds, especially very slow speeds. Sub-pixel processing is not available on all frame buffers.

System Fonts List

In CG: The collection of fonts maintained by the Font Manager. The list consists of only Inscriber fonts, not TrueType fonts.

T

Tab Alignment

In CG: Determines how text is positioned in relation to the 10 available tab stops.

Tab-Constrained Line

In CG: A line of text that is not completely free to move in all directions. Text can be constrained to a left, center, or right tab.

Contrast with Non-Tab-Constrained Line.

Tablet

See Graphics Tablet.

Take

Sends a rendered image or event file out to the frame buffer for output to video.

Take Button

Takes the current event and loads the next event into the Preview Channel. The Take button is on the CG/S toolbar that appears across the top of the workspace in all modules.

In Sequencer: A button on the Run tab that takes the current event.

Targa+64/32P

A brand of frame buffer.

Template

In CG: A pre-defined layout. Templates can contain any objects or settings that might be found in a layout, from lower thirds to complex full screen layouts using logos and other graphic objects.

See also Motion Template.

Template Registry

In CG: Location where all the layout templates are stored. You can use it to add, update, rename, delete, or load layouts.

See also Motion Template Registry.

Text Line

In CG: A single line of text. Text lines are enclosed by square brackets or a white rectangle. The line is the basic text unit in CG. CG works with lines, not paragraphs.

Text Object

In CG: A line of text containing characters or logos.

Contrast with Graphic Object.

Text Plane

In CG: The plane containing all of the text elements for the CG layer. Each layer is divided into a text plane and a graphics plane. The text plane is always located on top of the graphics plane for the layer.

See also Layer.

Texture

In CG: An effect that simulates a pattern or tactile surface on a CG object, such as marbling or basket-weave.

In Logo Compose: A graphic image pattern that can be applied to objects and images. Textures simulate a tactile or three dimensional surface. Logo Compose has two types of textures: seamless and alpha.

Time Code

In Sequencer: An indexing method that uniquely identifies each frame of frame-based media. Denotes hours, minutes, seconds, and frames elapsed for the medium (HH:MM:SS:FF).

Time Code Field

In Sequencer: A field that displays the current time code when your system is configured to use an external time code reader.

Time Code Offset

In Sequencer: A feature that offsets all the events in a time code group by a specific amount.

Time Code Reader

In Sequencer: A device that reads time codes from a time code source and translates them into a format CG/S can understand.

Time Code Source

A device, usually a video playback device like a VCR, that generates time codes.

Time Code Trigger Type

In Sequencer: A group trigger type that uses a time code reader and time code source as a trigger source for takes.

Time In

See In Point.

Time Out

See Out Point.

Timecode.exe

A program provided with CG/S that makes all the changes to Inscribe.ini required for time code access.

Timed Trigger Type

In Sequencer: A group trigger type that uses stop-watch-type timing as a trigger source for takes.

Timeline

See Track Slider.

Tolerance Fill

In Logo Compose: A tool that fills a layer or selection based on luminance values in the image. Use the Tolerance field to specify how close luminance values need to be in order to be filled in.

Total Take Duration

In Sequencer: The sum of the event duration and event wait time.

Transition

In Sequencer: An effect that takes place at the in point for an event. There are six types of transitions: cuts, wipes, tiles, louvres, dissolves, and pushes.

Transition Direction

In Sequencer: The direction a new image takes as it starts to appear on screen. Applies only to wipe, tile, louvre, and push transitions.

Transition Event

In Sequencer: An image file that has been combined with a transition (such as a push, cut, wipe, or tile transition).

Transition Granularity

See Transition Size.

Transition Size

In Sequencer: A setting that determines how much of the transition image is revealed at a time. Only applies to certain transitions (tile, louvre, and some wipe transitions). Size ranges from one (small) to five (large).

Transition Softness

In CG: A roll, crawl, or reveal setting that blurs the text entry or exit point. There are 0 to 100 lines of softness available. The softness begins at the line set for the Bottom or Top border. When you adjust the softness, guides appear in the CG Window to indicate the level of softness applied to the current layout.

Transparency

In CG and Logo Compose: The amount of background information that you can see through a graphic object, text, or image. An object with 0% transparency is opaque; an object with 100% transparency is fully transparent (you can see right through it).

Contrast with Opacity.

Trigger Type

In Sequencer: A particular method of telling Sequencer to take the current event. There are five trigger type settings in CG/S: Manual, Timed, GPI, Time Code, and PC Clock.

Trim Editor

In Sequencer: A dialog that allows you to crop your video clips by setting Mark In and Mark Out Points at specific frames. CG/S only runs the portion of the clip that falls between these Trim points. Portions of the clip outside the trim points are retained by CG/S, but are not played.

Trim Points

See Mark In and Mark Out Points.

TrueType Fonts

In CG: Fonts packaged with Windows and available in all Windows applications. TrueType fonts offer better anti-aliasing than Inscriber fonts. TrueType fonts can be converted to Inscriber fonts and then added to the Inscriber font database (Inscribe.ift), but they lose their improved anti-aliasing qualities in the process.

Tube

In CG: An effect that presses two identical edges together to form the main body of each text character. The resulting effect looks like a tubed bevel edge. Only available with the Neon type style.

Tube Edging

In CG: An edging option for graphic objects. Tube edging gives objects tubular beveled edges.

Tubed Bevel

In CG: An edging option with different effects depending on the current type style.

With the Embellished type style, text displays tubular beveled edges using color and transparency settings.

Two-Dimensional Space (2D)

In CG: Workspace that incorporates height and width. CG layouts created in 2D can be edited in three dimensions (height, width, and depth) in an animation application.

Type Face

See Font.

Type Styles

In CG: Formatted text characters consisting of classic type style elements plus additional text elements, including depth, face depth, body depth, outline edge, glow, and tube. The Color & Texture tab adjusts format settings.

U-V

Value

The shade of a color. Increasing or decreasing the value of a color is like adding or removing black pigment. Value must be 100% for a color to be fully saturated. When value is 0%, the color is completely black.

See also HSV Color Model and HLS Color Model.

Vector-Based Image

See .eps.

Vectorscope

A device used to adjust the color vectors when calibrating the frame buffer.

Vertical Blanking Interval (VBI)

The period of time when the video signal is at the blank level causing the electron beam not to appear when it sweeps back from the bottom to the top of the screen. A VBI occurs almost instantly.

Vertical Center Marker

In CG: A guideline that marks the vertical center of your layout. It is not included in image files that are rendered to disk.

Vertical Flip Filter

In CG, Logo Compose, and Frame Grab: An image filter that flips the image top to bottom. In Logo Compose: The vertical flip filter is accessed from the Transform tab.

Vertical Panel

In CG: A rectangle with bevels on the left and right edges.

via Format

See .via.

Viabuilder.exe

A program provided with CG/S that creates a series of .vias from other image files. Used when importing animations from other applications.

Video Aspect Ratio

The relationship between the width and height of an image when it is sent to video. The aspect ratio is different for computers and video monitors, so a correction is made when images are taken to video. The video aspect ratio is set in the Inscribe.ini file, and controlled by three values: the actual aspect ratio, the horizontal resolution, and the vertical resolution. The aspect ratio for NTSC and PAL is 4:3; the aspect ratio for HDTV is 16:9.

Video Bug

See Corner Logo.

Video Cleanup Filters

In CG, Logo Compose, and Frame Grab: Inscriber filters that smooth fielded images captured from video into non-interlaced images by removing odd- or even-numbered scan lines.

Video Frame

An interlaced image consisting of two separate fields (odd- and even-numbered scan lines), taken from a video signal.

See also Field and Interlaced Fields.

Video Legalize Filter

In CG and Frame Grab: A legalize filter that performs a simple NTSC or PAL legalize, depending on the settings in the General tab of the Preferences dialog.

See also Legalize Filters.

Video Signal

The video feed over which you place your layouts and images.

Video Standards

Standards that specify the protocol for television broadcast transmission and reception. Common standards include NTSC, PAL, and HDTV.

Video Transparent Pattern

The pattern CG/S uses to represent video transparency, set on the General Preferences tab. This pattern is not included in your final rendered images.

VMAXX-10

A brand of frame buffer.

VMAXX-20

A brand of frame buffer.

VRAM

Video RAM on a frame buffer or video card.

W-Z

Wait Time

In Sequencer: The time to wait after a transition is complete and before the next event begins.

Wedge

In CG: A triangular-shaped graphic object.

White Point

A setting for the output monitor, set during calibration.

Word Wrap

In CG: A setting where words that do not fit inside the video safe title area on the current line are automatically moved to the next line.

Zoom In/Out

In Logo Compose: A tool that magnifies an image in the Logo Compose workspace.

Index

Index
Numerics
1 Board
100%
2 Board
24 Hour
3 Board
32-Bit Image
32-Bit Clock
A
Adaptive
Add
Add to
Align
Alpha
100%
Displaying
In Logos
Painting With
Alpha Pattern
Alpha Tool
Angled Text
ANSI Keycodes
ANSI Text
for Subtitles
Anti-aliased
Defined
Auto Font Naming
to Update
Program/Preview Palette
Automatic Online Update
Defined
Average Field Filter
B
Background
Combining Color & Pattern
Defaults
Described
Transparent
Type
Video Transparent
Background Layer
Background Tab
Baseline
Beveled Edge
Bit Depth
Bitmap
Border
for a Crawl
for a Roll

Symbols

.bak files 18
.eps files 237
.icg files 36
.ins files 18, 230
.ips files 37
.lgo files 152, 230
.sly files 36
.ttf fonts 80

Numerics

10 Edges 87, 110
  Displaying 110
100% video 68
100% video background 69
16-bit images 153
1-bit images 153
32-bit images 152, 260
6500K 267
8-bit images 260

A

Absolute Corner Position 248
Accessing Trim Editor 206
Active channels 227
Adding 250
  Alpha 236
  Depth 101
  Events 182
  Logos 150
  Perspective 246
  Textures 130
  to IFT 85
  to selection 243
  Transitions 186
Adding Depth to transformations 249
Additional type styles 86
Adjusting Bevel Transparency 104
Aligning 146
  Graphic objects 146
  Objects to grid 146
  Tab stops 122
  Text 116
  Textures 132, 134, 136
Alpha 238
  Adding 236
  Channel 68, 238, 260
  Channel, displayed 238
  Channel, real 238
  Cleaning up 228
Alpha continued
  Filters 255
  Memory 237, 238
  Mix through to Key checkbox 104
  Selecting 244
  Textures 257
  Tools 236
  View 258
Alpha Add tool 236
Alpha Adjustment Filters 254
Alpha channel 260
  Compositing texture with 135
  Ignoring 68
  in logos 150
Alpha Fill tool 236
Alpha information 68
  in image backgrounds 68
Alpha Linear Gradient tool 236
Alpha Luminance Fill tool 236
Alpha Memory tool 236
Alpha Radial Gradient tool 236
Alpha Subtract tool 236
Alpha textures 257
  Creating 256
Alpha Tolerance Fill tool 236
Alpha tools 236, 238
  Add 236, 257
  Fill 236
  Linear Gradient 236
  Luminance Fill 236
  Memory 236
  Radial Gradient 236
  Subtract 236
  Tolerance Fill 236
Alpha view 258
Angle 96
  Depth 102
  Gradient 148
  of Brush 234
  Shadow 89
  Transparency 148
Angled text 76
Animations 194
  Importing 20
  Importing to Sequencer 212
  Looping 194
  Using as events 20
ANSI keycodes 82
ANSI text 128, 129
  for subtitles 173
Anti-aliased edges 262
Applying 254
  a beveled edge 93
  Filters 254, 255
  Filters to selections 241
  Masks 228
  Mattes 228
  Transformations 246
Arc direction, changing 140, 145
ARGB channels 238, 260
ASCII keycodes 82
ASCII text 128, 129
  for subtitles 173
Aspect ratio 259, 263
  Corrected 259
  HDTV 259, 263
  NTSC 259, 263
  Output picture 263
  PAL 259, 263
  Tools 259
  Video 259
Aspect, of brush 234, 259
Attributes tabs 34
  Brush 234
  Event Editor 186
  Filter 254
  in CG 34
  in Logo Compose 227
  in Sequencer 183, 204
  Run tab 202

B

Background 62–69
  Basics 62
  Color 63, 64, 67
  Color options 64, 66
  Complex 69
  Crawl 69
  from Frame Grab 68
  Full black 65
  Gradient 66
  Image 63, 68
  Image alpha information 68
  Image file location 68
  Imported graphics as 63
  Mix through to Key checkbox 104
  Overlay 62
  Overview 46, 62
  Pattern 63, 66, 67
  Reveal 69

Background continued
Roll 69
Size to fit 68
tab 63
Transparency 67
Transparent 66, 69
Two-color 64
Types 62
Video 62, 68
Video fill pattern 62
Background color 64–67
Changing 65
Selecting 65
Background image 68
Transparency 68
Background tab 63
Backing up templates registry 156
Baseline 79, 120, 121, 146
Bevel 101
Bevel direction, changing 147
Beveled edge 109, 142, 147
Applying 93
Bitmap images 262
Blend 65
Solid/Blend Box 65
Blue channel 260
Body Depth 107
Bold text 76
Bold version of FNT font 85
Border 50
for crawls 50
for rolls 50
for stills 50
Selecting 244
Settings 50
Values 50
Bottom Gradient Value 66
Bottom Transparency Value 69
Boxed text 124
Brackets 46, 116
Non-tab-constrained lines 116
Tab-constrained lines 116
Text 46
Brightness 228, 255
Image filters 255
Bringing objects to front 145
Browsing Fonts 80
Brush 232
Angle 234
Aspect 234, 259
Brush continued
Calligraphy 234
Cursors 235
Elliptical 233
Opacity 232
Rectangular 233
Resetting 235
Selecting 232
Single-Pixel 233
Size 234
Softness 234
Spacing 234
Speed 234
Square 233
Styles 233
Tools 232
Brush preview cursor 226, 234, 258
Brush Selection tool 242
Brush Style 232
Brush tab 234
Brush-based tools 232
Buildup 233
Burn tool 264

C

Cache tab 30
Calibration 266
Computer monitor 266
Frame buffers 266
Glare 267
Lighting 267
Order 266
Output monitor 266
System 266
Calligraphy effect 234
Canvas size 231
Capture images 218
Center tab 122
Center vertically 122
CG 34–173
CG Editor 34
Character map 82
Concepts 44
Exporting 36
Importing 36
Menus 71
Overview 34, 44
Preferences 38, 99
Short cut keys 42
Toolbar 34, 43
CG continued
Using Logos 236
Workspace 34
CG effects 194
CG/S Output 24
Changing 145
Arc direction 145
Bevel direction 147
Brush 235
Canvas size 231
Color gradient 96
Color groups 73
Colors 59
Existing templates 156
Gradient backgrounds 66
Gradients 97
Image size 231
News Edit tables 160
Printing speed 23
Style groups 73, 74
Text path 124
Wedge direction 145
Changing Color groups 74
Channel 260
Active 227
Alpha 228, 238, 260
Blue 260
Displayed alpha 238
Generic dialog 260
Green 260
Importing 260
Key 228, 260
Offset 260
Options 260
Real alpha 238
Red 260
Scale 260
Select dialog 260
Selection 240, 260
Texture 260
Thumbnails 260
Tool palette 227
Channel ripple 208, 209
Channels 238
Multiple 208
Selecting 208
Setting up 208
Character 76
Edge 90
Formatting 76

Character continued
Rotating 79
Spacing 79
Character fill 97
Character Generator tab 38
Character mapping 82
Windows version 82
Character reveal 51
Checking spelling 126
Choosing layout types 48
Chroma 264
Chrome, simulating 255
Chrominance 264
Classic type style 76, 86
Cleaning up 243
Background images 68
Logos 228, 236, 243
Clipboard 129
Importing from 129
Clipped corner rectangle 140
Clips 206
Importing 20
Trimming 206
Using as events 20
Clone tool 251
Using 252
Closing 18
Files 230
job files 18
Closing Files 230
Closing job files 18
Collapsing groups 182
Collecting job files 19
Color 58–97
Adjusting in Bevel 104
Bevel 101
Beveling text 104
Bottom 65
Calibration 266
Changing 59, 65
Changing gradient 96
Character fill 97
Chrominance 264
Combinations 264
Combining with patterns 67
Correction 228, 255
Eliminate 101
Encoder 264
Full Alpha 101
Full black 97
Color continued
Gamma 265
Gamut 265
Gradient 66, 96, 148
Hot 95
Illegal values 95, 263, 264
Line fill 97
Linear fill 97, 148
Logos 153
Luminance 264
Monochrome logo 153
Multiple 100
Numeric value fields 64
Options drop-down list 101
Problematic 264
Radial fill 97, 148
Ramp 101
Real world 265
Saturation 264
Selecting 64, 65, 94–95
Selection tools 64
Solid 65
Solid/Blend box 96
Tinting textures 133
Top 65
Tube 114
Unsafe 95, 263, 264
Color & Texture tab 61, 94, 130–137
Additional type styles 77, 86
Classic type style 77, 86
Texture toggle 132
Color Adjustment Filters 254
Color background 64
Complex 66
Options 64
Overview 62, 63
Pattern 63
Color Balance, image filters 255
Color chips 94
Color gradient 96
Angle 66
as Background 63
Color group 72
Applying 72
Assigning to News Edit tables 162
Changing 73, 74
Copying 41
Formatting palette 41
Freeform color 45, 73, 74
Graphic objects 72, 139
Color group continued
Logos 153
Overview 45
Right-click menu 74
Text 41, 72
Color groups 34, 70
Color logo 153
Color model 58–61
Basics 58
HLS 60, 64
HSV 58, 64
Hue 58, 60
Lightness 60
RGB 60, 64
Saturation 58, 60
Value 58
Color Picker Box 64
Color selection tools 64
Color Selector 64
Color Slider 64
Color view 258
Column Selection tool 242
Comments, in News Edit 163
Complex selections 244
Compositing textures 134–135
Concepts, in Logo Compose 228
Concurrent Display 38
to PGM 38
to PRV 38
Constrain Gradient. See Lock
Constrain Transparency 69, 98
See also Lock
Contents, of selection 240
Context sensitive menus 227
in Logo Compose 227
Contracting selection 244
Contrast 228, 255, 264
Image filters 255
Control characters 162, 173
Control Panel, Fonts 80
Control points 124, 141
Deleting 124
Coordinates, in Logo Compose 226
Coordinates, of Logo Compose cursor. 226
Copying 144, 183
Events 182
Graphic objects 144
Style groups 41
Text 71
Copying Color groups 41

Corrected video aspect ratio 259
Correction, color filters 255
Crawl 48, 194
  Appearance 48
  Background 69
  Creating template for 128
  Creating text files 129
  Importing text 128
  Number of text lines 48
  Page-based 55
  Speed 55, 193
  Word Wrap 54
Crawl direction 55
  Left 55
  Right 55
Crawl settings 54
  Changing 54
  Softness 54
  Speed 55
Creating 35, 188
  Crawl text file 129
  Effects 229
  Embossed edge 91
  Event Groups 179
  Event groups 182
  Event Lists 178
  Gradient backgrounds 66
  Graphic object copies 144
  Layouts 45
  Masks 260
  Mattes 260
  Patterns 229
  Roll text file 128
  Selections 242
  Shadows 229
  Subtitle templates 170
  Text boxes 124
  Text on a path 124
  Textures 229, 256
  Transition Events 188
Credits roll 48
Cropping 228
  Clips 206
  Grabs 218
  to selection 244
Ctrl+Tab 116
Cursors 235
  Brush 235
  Brush Preview 226, 234, 258
  Coordinates 226
Cursors continued
  in CG 46, 77
  in Logo Compose 226
  Large Crosshairs 258
  Options 258
  Position 226
  Small Crosshairs 258
Curves, image filters 228, 255
Cut Transition 190
Cuts 188, 190, 192
Cutting 183
  Events 182
  Graphic objects 144
  Text 71
Cycle checkbox 203
Cycle Event List 203

D

Decrement Speed 193
Default 76
  CG text attributes 76
Defining source points 252
Deleting 144, 183
  Control points 124
  Event groups 182
  Events 182
  Fonts 81
  Job files 18
Deleting group headers 182
Depth 101, 102
  Adding to transformations 249
  Transform option 246
  vs. Shadow 101
Desaturated color 264
Deselecting 244
  Transformation 247
Device gamma 265
Direction 55
  of crawl 55
  of roll 53
  of shadow 76, 89
Disabling Word Wrap 49
Displayed alpha channel 238
Displaying 80
  Colors, in Sequencer 214
  Font faces 80
  Font names 80
  Latency 204
Dissolve Transition 190
Dissolves 188, 190
Distort face 100
Distortion Filters 254
Dither 28
Dodge tool 264
DOS text 128, 129
Double beveled edge 105
Double-byte fonts 83
  Logos in 153
Drag Grid 38
Dragging 116
  Text objects 116
Drop shadow 88
Duotone, simulating 229, 255
Duration 189
  Cutting transitions 192
  of takes 192
  Setting, from Speed 193
  Trimming clips 206

E

EBU subtitle format 168, 173
Edge 76, 138, 142
  Basics 90
  Color chip 94
  Double 105
  Edge & Sheen toggle 112
  Edge Over Face 105
  Embossed 91
  Flat 142
  Glow 90
  Graphic objects 70, 142
  Knockout to background 144
  Normal 142
  on logos 152
  Outline 90
  Outlined only 144
  Round 142
  Selecting color 94
  Size 76, 90, 142–143
  Size, 10 Edges type style 110
  Text objects 70, 90, 91
  Transparency 148
  Tube 142
  Type 76, 90
  Using Background 144
Edge & Sheen 112
Edge Over Face 86, 105, 108
Edit menu 71, 227
  in CG 71
  in Frame Grab 218

Edit menu continued
in Logo Compose....227
in Sequencer....179
Editing....182
Events....182
Groups....182
Image....250, 251
News Edit tables....166
Trim points....206
Editor....34
CG....34
Logo Compose....226
Effect events....180, 194
Animations....194
CG effects....194
Crawls....194
Reveals....194
Rolls....194
Stopping Takes....195
Effect Settings tab....50, 52, 54, 56
Effects....86
10 Edges....87
10 Edges Visible layer....110
Calligraphy....234
Chrome....255
Creating in Logo Compose....229
Duotone....255
Edge Bevel, in CG....109
Edge Over Face....86
Embellished....86
Face On Top....106
Ghost....108
Inside layer....110
Neon....87
Recessed....87
Sheen....87
Tubed....109
Element menu....35
Constrain options....122
Text options....49
Elements....46
Eliminate Text Element....101
Elliptical Brush....233
Elliptical Selection tool....242
Embellished....86, 108, 109
Embossed edge, Creating....91
Enabling textures....136
Enabling Word Wrap....49
Encoder, color....264
Ending Transformations....247
ENTER key....184
Entering text....46
Eraser support....233
Event attributes....180
Selecting....182
Event Duration....192
Setting, from Speed....193
Event Editor tab....183, 186, 204
Event Groups....179
Event Label....202
Event List....178
Channel ripple....209
Creating....178
Described....176
Editing....182
Groups....179, 180
In points....192
Live updates....203
Looping....203
Managing....182
Out points....192
Event Number....202
Event Sequence....179, 212, 213
Running....179
Event Timing, Setting....179
Events....180
Adding....182
Copying....182
Deleting....182
Described....180
Editing....182
Effect events....180
Grouping....179
Location....204
Number....202
Pasting....182
Renaming....186
Running....184
Selecting....182
Speed....193
Transition events....180
Trimming....206
Exiting Transformations....247
Expanding groups....182
Expanding selection....244
Exporting....36, 240
.icg files....36
.ips files....37
Fonts....81
Images....37
Exporting continued
in CG....36
Layouts....36
Selection contents....241
Selections....231, 241
Sequence text files....37
Subtitle files....172
Text files....36
Exporting Files....230
Extensions....18
Online folders....212
Extensions, job folders....18
Extrude shadow....88

F

Face....76, 108
Color chip....94
Distorting shape....100
Formatting....78
Graphic objects....70
Selecting color....94
Text objects....70
Textures....136
Transparency....148
Face Depth....107
Face On Top....106
Feather selection....244
Field values, setting....11
File....18
Close....230
Export....230
File types, subtitles....168
Files....18
.bak....18
.eps....237
.ins....230
Background image locations....68
Closing....230
Closing jobs....18
Deleting jobs....18
Exporting....36, 230
Formats....19
Illustrator....237
Importing....36, 230
in Logo Compose....230
Opening....18, 230
Opening jobs....18
Packed job format....19
Saving....18, 230
Saving jobs....18

Files continued
Vector-based 237
Working with..... 18, 230
Fill 97
Character..... 97
Line 97
Linear 97, 148
Radial..... 97, 148
Showing 35
Fill pattern..... 62
Filter tab..... 254
Filters..... 218, 220, 254
Alpha 255
Alpha Adjustment 254
Applying..... 241, 254, 255
Background image 68
Brightness 255
Channels 260
Color Adjustment..... 254
Color balance 255
Color correction 255
Contrast 255
Curves..... 255
Distortion..... 254
Filter tab..... 254
Folders 254
in General..... 229
Inscriber..... 254
Legalize 254
Monochrome 255
Opacity..... 255
Photoshop 255
Plug-in 255
Risetime in CG 38
Undo..... 255
Flat edge..... 142
Flicker, in Frame Grab 218
Flipping..... 249
Transform option..... 246
Transformation..... 248
Floating palettes..... 35
FNT files directory..... 85
FNT font..... 77, 80
Removing..... 81
Folder extensions 212
Folders, Filters 254
Folders, job extensions 18
Font Database..... 84
Font Database file, Sharing..... 18
Font Database. See Font Manager
Font list..... 80
Font Manager 84–85
Adding bold version 85
Adding fonts..... 84
Adding italic version 85
Batch processing fonts..... 84
Duplicate names 84
Modifying fonts 85
Range..... 85
Shared IFT database..... 18
Font names, displaying..... 80
Fonts 76, 80–85
.ttf..... 80
Database 81
Displaying faces 80
Displaying names..... 80
Double-byte..... 83
FNT 77
Glyph-processed 83
Inscriber format..... 80
Kerning..... 79
Leading..... 78
Packed 81
Removing..... 81
Size 78
TrueType 76, 80
Foreground. See Face 76
Format Sample 34, 40, 72, 74
Formatting 34, 70
Graphic objects 74
Local, for text..... 75
Logos 152
Options 70, 72
Text 74
Text face..... 78
Formatting palette 34, 72, 138–139
Color groups..... 41
Right-click menu 74
Style..... 41
Using 40
Frame 266
Frame buffers 10
Borders 50
Channel ripple 209
Multiple boards 222
Multiple Program channels..... 14
Onscreen area..... 121
Program/Preview channels 15
Program/Preview palette 208
Setting up..... 222
Frame Grab 217–223
Applying filters..... 218
Cropping images..... 218
Grabbing..... 218
Image filters 220
Menus..... 218
Overview..... 218
Saving..... 223
Setting up..... 222
Freeform color..... 45, 73, 74
Freeform style 45, 73, 74
Freeform tool 246
Full Alpha 101
Full black background..... 65, 97
Full video 97

G

Gamma 28, 265
Calibration 266
Computer monitor 267
Correcting 267
Output monitor 267
Gamut..... 265
General tab..... 99
Generic channel dialog 260
Ghost..... 108
Glare..... 267
Glow 114
Glow edge type 90
Glyph-processed fonts..... 83
Logos in 153
GPI trigger 196
Configuring..... 198
type 196
Grab handles 124, 141
Grab images 218
Gradient..... 66, 96
Angle 67, 96, 99, 148
Background..... 66
Changing..... 66, 97, 148
Changing color 96
Character fill..... 97
Color..... 96, 148
Color background 63
Combining color and pattern 67
Creating 66
Horizontal..... 66
Line fill 97
Linear fill 97, 148
Lock 66

Gradient continued
Radial fill 97, 148
Repeats 148
Repeats, in fill 97
Top and Bottom Values 66
Transparency 99, 148
Transparent background 63
See also Lock
Gradient angle 66, 96
Changing 66
Rotating 66
Gradient Lock 96
Graphic background 68
Graphic files for logos 152
Graphic layers 34, 41, 138
Switching to 141, 143
Graphic objects 138–149
Aligning to grid 146
Aligning with markers 146
Appearance 72
Basics 70
Bevels 147
Changing 141
Changing bevel direction 147
Color group 139
Control points 141
Copying 144
Creating 138
Creating copies 144
Cutting 144
Dragging to other layers 147
Edge 70, 142
Face 70
Foreground. See Face 70
Format Sample 40, 72
Formatting 74, 140
Grab handles 141
Gradients 148
Knockout to background .. 97, 138, 144
Layering 148, 149
List of objects 141
Logos 150
Modifying 74, 138, 139
Nudging 146
Outlined only edge 144
Overview 46
Pasting 144
Positioning 146
Resizing 146
Selecting 144
Graphic objects continued
Selecting color 94
Shadow 70, 142
Stacking 47, 149
Style group 139
Tools 40
Transparency 98, 148
Types 140
Graphic planes 47
Graphic tools 138
Graphics 138
Freeforming 246
Moving 246
Rotating 246
Scaling 246
Skewing 246
Tablet support 233
Transforming 246
Green channel 260
Grid 146
options 258
Screen 121
Group 179, 181
Events 179
Headers 181
Selecting attributes 182
Groups 181
Attributes 181
Collapsing 182
Creating 182
Deleting 182
Editing 182
Expanding 182
Headers 181
on Event Lists 180
Renaming 186
Selecting 182
Trigger type 196
Groups of text lines 118
Moving 118

H

Handles. See also Grab handles 141
Hard edge 233
HDTV 259, 263
Height, of text 76
High Quality font processing 76
Highlights, text 102, 112
HLS color model 60
Horizontal Flip 248
Horizontal panel 140
Horizontal resolution 28
Horizontal screen, centering 120, 121
Horizontal texture alignment 132
Horz Screen, centering 121
Hot colors 95
HQ font processing 85
HSV color model 58
Hue 58, 60

I

Ignoring Alpha 68
Illegal color values 95, 263, 264
Illustrator files 237
Image 260
32-bit 260
Adding to texture map 130
Bitmap 262
Capturing 218
Cleaning up 228
Color balance 255
Color correction 228, 255
Contrast 264
Cropping 218
Curves 255
Editing 250
Exporting rendered 37
Filters 68, 220, 254
Flicker 218
Freeforming 246
Levels 228, 255
Logo Compose, in CG 237
Moving 246
Positioning 246
Raster 262
Resizing 262
Retouching 228, 250
Rotating 246
Saving a grab 223
Scaling 246
Size 231
Sizing 246
Skewing 246
Transforming 246
Vector-based 237, 262
Video 262
View Size 226
Image background 68
Alpha information 68
File location 68

Image background continued
Overview 62, 63
Size to fit 68
Image box 68
Image Editing tools 228
Blur 250
Burn 250
Clone 250
Clone Fill 250
Dodge 250
Luminance Add 250
Luminance Subtract 250
Offset 250
Saturation Add 250
Saturation Subtract 250
Smear 250
Image files for logos 152
Import, Word utility 19
Imported image background 63
Importing 36, 240
.icg files 36
Animations 20
Channels 260
Clips 20
Crawl text 128
Files 230
Image as Transformation 246
in CG 36
Layouts 36
Logo Compose images, in CG 237
News Edit tables 36
News Edit text files 162, 164
Roll text 128
Selections 231, 260
Subtitle files 169, 170
Text files 36, 128, 170
Using clipboard 129
Vector-based files 237
Word utility 19
In points 192
Changing 179
Quick keys 210
Setting 186, 193
Timecodes 200
Trigger types 197
Trim Editor 206
Increment Speed 193
Inscribe.ift 81
Inscribe.ini 18
Edge values 90
Inscribe.ini continued
Shadow values 88
Inscriber filters 254
Inscriber font database 81
Inscriber format fonts 77
Inscriber preferences 28
Inserting 151
CG objects above 144
CG objects below 144
Logos 151
Insertion point 46, 116
Inside Layer 110
Intersecting with selection 243
Inverting selection 244
Invisible, selecting 244
Italic text 76
Italic version of FNT font 85

J

Job 195
Running 179
Stopping 195
Job files 18, 230
Closing 18
Deleting 18
Opening 18
Packed 19
Saving 18
Job folder extensions 18

K

Kerning 76, 79
Key 228, 260
Mix through to Key checkbox 104
Key, showing 35
Keying 228
Keying type 28
Knockout to background 97, 138

L

Label button 203
Large Crosshairs 258
Lasso tool 242
Latency 204
Displaying 204
Layer Control option 117
Layer list 47, 117
Layering graphic objects 149
Layers 46
Alpha 238
Layers continued
Changing, using mouse 147
Graphic 34, 41
Moving text between 117
Numbering 47
Switching 43, 120, 147
Text 34, 41, 117
Layout type 48
Choosing 49
Crawl 48, 54
Overlay reveal 51
Reveal 49
Roll 48, 52
Selecting 34, 48
Still 48
Layouts 44, 46
Adding to templates registry 154
Based on same template 157
Checking spelling 126
Creating duplicates 44
Creating from template 45
Default template 156
Exporting 36
Importing 36
Moving lines 116
Pages 120
Parts 46
Softness areas 55
Subtitle layout 169
Templates 154
Understanding 46
Updating 157
Using News Edit text 166
Leading 76, 78
Left edge 120, 146
Left tab 122
Legal colors 263, 264
Legalize Filters 254, 263
Level of selection 240
Levels, image filters 228, 255
Library. See Templates Registry
Light source. See also Bevel direction 147
Lightness 60
Lights 267
Line fill 97
Line reveal 51
Line. See Text
Linear fill 97, 148
Linear Lasso tool 242
Live Playlist checkbox 203

Live Update checkbox....203
Live updates....15
Automatic....15
Event List....203
Play List....203
Program/Preview palette....15
Local Disk....204
Local formatting....75
Local RAM....204
Location symbols....205
Lock....66, 69, 96, 98
Gradient....66, 96
Transparency....69, 98
Locked lines....118
Logging online activity....213
Logo....140, 150–153
.lgo format....152
16-bit images....153
1-bit images....153
32-bit images....152
Adding to layouts....151
as graphic object....151
as text....151
Cleaning up....228
Color....153
Color group....153
Edge....152
File types....152
Formatting....152
in double-byte fonts....153
in glyph-processed fonts....153
in layouts....150
in News Edit....162
Logo Compose in CG....237
Map....150
Monochrome....153
Overview....46, 141, 150
Shadows....152
Style group....153
Vector-based....237
Logo Cleanup....236
Logo Compose....225–269
Attributes tabs....227
Concepts....228
Editor....226
File format....230
Filter tab....254
Images in CG....237
Menus....227
Modifiers....226
Logo Compose continued
Overview....226
Select tab....244
Short cut keys....227, 268
Status bar....226
Tasks....228
Tool palette....227, 232
Tools....232
Transform tab....246, 248
using Scrapbook....227
View tab....258
Workspace....226
Logos....136
Resizing....236
Scaling....236
Using in CG....236
Logos tab....150
Looping....194
Animations....194
Events....203
Louvre Transition....190
Louvres....188, 190
Lowercase letters....79
Luminance....264
Abrupt changes in....38
Luminance Add tool....264
Luminance Subtract tool....250, 264
Luminance Wand tool....242

M

Macintosh compatibility....19
Macintosh files, Exporting....19
Manual trigger....51, 196
Map....82
Character....82
Logo....150
Texture....130
Mapping....82
Characters....82
Logos....150
Textures....134
Markers....120
Modify....121
Overview....120
View....121
Marquee....228, 240
see also Selections....240
Masking, images....228
Masks....228, 260
Match Constrain Transparency....98
Match Gradient Values. See Lock
Match Transparency Values. See Lock
Match Values....99
Mattes....228, 260
Memory, alpha....237, 238
Menus....71
in CG....71
in Frame Grab....218
in Logo Compose....227
in Sequencer....179
Mix through to Key checkbox....104
mix to alpha channel....104
mix to background....104
Mode....184
Offline....184
Online....184
Modifiers, in Logo Compose....226
Modifying....235
Brush....235
Graphic objects....139
Markers....121
News Edit tables....160
Tab stops....123
Templates....156
Monitor, calibration....266
Monochrome logo....153
with texture....136
Monochrome, image filters....255
Motion, simulating....229
Mouse....145
Changing Arc....145
Changing Color groups....75
Changing Style groups....75
Changing Wedge direction....145
Creating graphic objects....138
Manipulating text with....119
Moving text with....119
Resizing graphics, in CG....146
Resizing text....119
Mouse pointer....119
Cursor shapes....119
Layer indicator....117
Move tool....246
Moving....149
Graphics....246
Objects in stack....149
Selection....243
Moving graphic objects....146
Moving objects down....149
Moving objects up....149

Moving text 116, 118
Group of lines 118
to another layer 49
with keyboard 118
with mouse 116
Multiple boards 222
Multiple channels 14, 208
Configuring 208
Selecting 208
Setup 208
Multiple triggers 196
Multiple users 26

N

Neon 87, 114
Network, Shared items 26
News Edit 158–167
Assigning Color groups 162
Assigning Style groups 162
Comments 163
Control characters 162
Creating table 165
Designing templates 158
Displaying tables 166
Importing tables 162, 164
Logos 162
Offline 158
Online 158
Overview 158
Searching tables 167
Tables 160
Template example 159
News Edit registry 44, 166
News Edit tab 166
News Edit tables 160
Adding text to layouts 166
Assigning Color groups 162
Assigning Style groups 162
Changing 166
Comments in 163
Control characters in 162
Creating 160
Displaying 166
Editing 166
Importing 36, 163, 165
Linking to text objects 161
Logos in 162
Modifying 161
Registry 160
Saving 160
News Edit tables continued
Searching 167
Tab stops 163, 164
Text files 160
Updating 166
Node cache 30
Non-tab-constrained lines 43, 116
Brackets 116
Normal edge 142
NTSC 95
Configure for 28
NTSC video 259, 263
Illegal color values 95
Nudge 118, 146
Graphic objects 146
Text objects 118
Number 177
Event number 177
Numeric value fields 11
Color 64

O

Object. See Graphic objects
Objects 70–71
Basics 70
Freeforming 246
Graphics 70
Moving 246
Rotating 246
Scaling 246
Skewing 246
Text 70
Transforming 246
Types 70
Offline mode 184
Offline takes in CG 51
Offset 88
Shadow 88
Timecodes 210
Tool 256
Online 184
Logging activity 213
Mode 184
Output directory 215
Program/Preview channels 208
Running sequences 184, 202
Using Run tab 202
Online Folder extensions 18, 212
Online mode 184
Opacity 255
Opacity continued
Brush 232
Filters 255
of selection 240
of transformation 249
Texture 233
Tools 233
Opening Files 230
Opening job files 18
Options, Color 96
Adjusting Bevel color 104
Beveling text 104
Organizing Event Lists 180
Other type styles 86
Out points 192
Changing 179
Quick keys 210
Setting 186, 193
Timecodes 200
Trigger types 197
Trim Editor 206
Outline edge 90, 106
Outlined only 144
Output 24
in CG/S 24
to video 184
Oval 140
Overlay background 62
Overlay reveal 51
Overview 10
of CG 34
of Frame Grab 218
of Logo Compose 226
of Sequencer 176

P

Packed fonts 81
Packed jobs 19
TrueType fonts in 81
Page field 120
Page setup 22
Page-based crawls 55
Painting with alpha 236
PAL 95
Configure for 28
PAL video 259, 263
Illegal color values 95
Palette 34–35
Floating 35
Formatting 34, 40

Palette pop-ups....232
Pan....232, 258
Parts of a layout....46
Pasting....71, 129, 183
Events....182
Graphic objects....144
Text....71
Path, text on....124
Pattern....67
Background....67
Combining with color....67
Creating, in Logo Compose....229
List....67
Size....67
Pausing....195
Pausing Takes....195
PC Clock trigger....196, 197
Configuring....198
type....196
Perspective....249
Adding....246
Adding, to transformations....249
PGM button....15
Picking Color....64
Pixel....263
Aspect ratio....259, 263
Rectangular Pixels....263
Shape....263
Square....263
Planes....47
Graphic....47
Text....47
Play Direct....184
Play List....12
Creating....12
Described....177
Event number....177
Live updates....203
Overview....12
Preview options....13
Printing....22
Rendered file name....177
Take options....13
Updating templates in....157
Playback speed....195
Playing subtitle files....172
Pluge test pattern....267
Polygon....140, 141
Pop-ups....232
Position of cursor....226
Position of tab stops....122
Positioning....116
Graphic objects....146
Logos, in CG....151
Objects....246
Text....116, 117
Predefined formats....158
Preferences....38, 214
CG....38
Frame Grab....222
Inscriber....28
Sequencer....214
Pressure support....233
Preview....14
Play List....13
Program/Preview palette....14
Quick takes....15
Preview channel....14
Live updates....15
Online setup....208
Preview cursor....226, 234, 258
Print Preview....22
Printing....22–23
Changing printing speed....23
Page setup....22
Play List....22
Problem colors....264
Program channel....14
Live updates....15
Online setup....208
Quick take....15
Selecting....186
Program/Preview palette....14
Frame buffers....15
Live updates....15
PGM button....15
Preview channel....14
Program channel....14
PRV button....15
Summary....177
PRV button....15
Pull object....49
Push object....49
Push Transition....190
Pushes....188

Q

Quality, of CG characters....34
Quick keys, in Logo Compose....227, 268
Quick takes....15

R

Radial fill....97, 148
RAM....204
Ramp....101
Raster-based images....262
Rasterizing images....237
Ratio, aspect....259, 263
Real alpha channel....238
Real world color....265
Recessed....87, 106, 107
Record cache....30
Recording online activity....213
Rectangle....140
Rectangular....140
Pixels....263
Selection tool....242
Rectangular Brush....233
Rectangular Selection tool....242
Red channel....260
Registry....44
Managing....44
News Edit....44, 166
Sharing....26
Templates....44, 156
Regulating speed....52, 55
Relative 2D Transform....248
Relative Corner Offsets....248
Relative Corners....248
Remembered alpha values....237, 238
Remote subtitle entries....172
Removing Fonts....81
Renaming....212
Events....186
Groups....186
Render location....204
Changing....186
Local Disk....204
Local RAM....204
Location symbols....205
Remote subtitle entries....204
Rendered file name....177, 202, 212
Rendered images, exporting....37
Rendered symbols....205
Re-ordering....12
Resetting, Brushes....235
Resizing....262
Graphic objects....146
Graphics, in Logo Compose....262
Images, in Logo Compose....262
Logos....236

Resizing continued
Logos, in CG 151
Text 78
Resolution 28
Resource Files 27
Sharing 26
Resuming Takes 195
Retouching 251
Example 251
images 228, 250
Reveal 49
Layer constraint 49
Overlay 51
Per character 51
Per line 51
Speed 51
Reveal background 69
Reveal layout 49
Settings 50, 51
Reveal settings 50
Changing 51
Re-wrapping text 123
RGB color model 60
RGB view 258
RGBA channels 238, 260
Right tab 122
Right-click menu 35, 74
for Color groups 74
for Scrapbook 131
for Style groups 74
in CG 35
in Logo Compose 227
Risetime Filter 38
Roll 48, 194
Appearance 48
Background 69
Creating template for 128
Creating text file 128
Direction 53
Down 53
Importing text 128
Speed 52, 193
Up 53
Word Wrap 53
Roll settings 52
Changing 52
Softness 52
Speed 52
Rotate tool 246
Rotating 76
Rotating continued
Around baseline 79
Characters 79
Individual character 79
Text line 79
Round edge 142
Rounded rectangle 140
Run tab 202
Label button 203
Running sequences 202
Take options 202
Time Code field 203
Running Jobs 179

S

Safe Title Area 121
Saturation 58, 60
Video 264
Saturation Add tool 250
Saturation Subtract tool 250
Saving Files 230
Saving job files 18
Saving News Edit tables 160
Scale tool 246
Scaling 246
Images 262
Logos 236
Scan Line Selection tool 242
Scanlines 218
Scrapbook 16–17
Adding items 16
Deleting items 16
in Logo Compose 227
Menu 17
right-click menu 16
Textures from 131
Using items 16
Using Texture 131
Screen center, in CG 120, 121
Screen coordinates 226
Screen grid 121
Screen, horizontal center 121
Screen, vertical center 121
Scroll tool 232, 258
Scrolling 48
Scrolling in a crawl 48
Seamless textures 256
Creating 256
Searching News Edit tables 167
Select Channel dialog 260
Select menu 227
Selecting 183, 244
Alpha 244
Brushes 232
Color 64, 94
Event attributes 182
Events 182
Fully 244
Graphic objects 144
Group attributes 182
Groups 182
Layout type 34, 48
Program channel 186
Templates 34
Text 71
Tools 232
Selecting all 244
Selecting events 183
by label 202
by number 202
Selecting none 244
Selection 244
Border 244
Cropping 244
Feather 244
Softening 244
Selection Move tool 242
Selection opacity 240
Selection tools 242
Elliptical 242
Lasso 242
Linear Lasso 242
Scan Line 242
Selections 240–245
Adding to 243
All 244
Channel 240, 260
Complex 244
Contents 240
Contracting 244
Expanding 244
Export contents 240, 241
Exporting 231, 240, 241
Hide 240
Import contents 240
Importing 231, 240
in General 228
Intersecting with 243
Inverting 244
Invisible 244

Selections continued
Layer....240
Making....242
Marching ants....240
Marquee....240
Marquee. See also Selections....240
Moving....243
Options....244
Select tab....244
Similar....244
Single....243
Smoothing....244
Subtracting from....243
Transformations....246
Visible....244
Semi-transparency....98
Sending objects to back....145, 149
Sending objects to front....149
Sequence....180
Running....179
Sequence text files....37
Sequencer....175–215
Concepts....178
Displaying colors....214
Event List....176
Getting Started....178
Interface Overview....176
Menus....179
Overview....176
Preferences....214
Tips and Tricks....212
Sequencer tabs....177
Event Editor....186
Run....202
Setting Duration....210
from Speed....193
Setting field values....11
Settings....50
Crawl....54
Effect Settings tab....50, 52, 54
Reveal....51
Roll....52
Still....50
Shadow....76, 88, 101, 102, 138, 247
Angle....89
Basics....88
Color chip....94
Creating....229
Direction....76, 89
Drop....88
Shadow continued
Graphic objects....70, 142
on logos....152
Selecting color....94
Size....76, 88
Soft....88
Softness value....89
Text objects....70, 88
Transparency....148
Type....76, 88
vs. Depth....101
Shape....226
Pixel....263
Sharing
Font Database files....18
Sheen....87, 102, 112
Edge & Sheen toggle....112
Short cut keys....42
in CG....42
in Logo Compose....227, 268
Show alpha....35
Show font faces....80
Show RGB....35
Similar selection....244
Single Pixel....232
Single selection....243
Single-Pixel Brush....233
Size....226
Brush....234
Edge....90
Fonts....78
of edge....76
of font database....81
of graphic objects....146
of pattern....67
Shadow....88
Size & Attributes tab....77–90, 138
Size to fit....68
Size, Edge, 10 Edges type style....110
Sizing....231
Canvas....231
Image....231
Logos, in CG....151
Objects....246, 262
Textures....130–137
Skew tool....246
Slanted text....76
Small Caps....76, 79
Small Crosshairs....258
Smoothing selection....244
SMPTE color bars....267
Soft edge buildup....233
Soft shadow....88
Softness value....89
Softening Selection....244
Softness....52, 54
Brush....234
in layouts....55
Solid/Blend box....65, 96
Source point....252
Defining....252
Spacing between characters....79
Spacing, brush....234
Special characters....82
in News Edit tables....163, 164
Speed....52, 55, 193
Changing during takes....195
Decrement....193
Increment....193
of brush....234
of crawl....55
of roll....52
Regulating....52, 55
Spell check....126
in CG....126
Spline curve....140, 141
Text on....124
Square Brush....233
Square Pixels....263
Stack....47
Bringing objects to front....145
Moving objects in....149
Sending objects to back....145
Stacking graphic objects....149
Status bar....226
Still layout....48
Settings....50
Still settings....50
Still settings, Changing....50
Stopping....247
Jobs....195
Takes....195
Transformations....247
Storm warning crawl....48
Style....233
Brush....232, 233
Style group....72, 77
Applying....72
Assigning to News Edit tables....162
Changing....73, 74

Style group continued
Copying....41
Formatting palette....41
Freeform style....45, 73, 74
Graphic objects....72, 139
Logos....153
Overview....45
Right-click menu....74
Text....41, 72
Style groups....34, 70
Styles tab....41, 72, 139
Subtitles....168–173
ASCII text....173
Blank layouts....171
Converting languages....172
Creating blank layouts....168
Creating templates....170
EBU format....168, 173
Exporting....37, 168, 172
File types....168
Formatting codes....173
Graphics in template....170
Importing....37, 168
Importing text files....169, 170
Playing files....172
Playing imported....172
Setting entries to Remote....172
Subtitle-only file....168
Timecode format....169
Timecoded....168, 171
Timing values....171
Troubleshooting....172
Versioning....172
Subtitling....200
Subtracting from selections....243
Support tablet....233
Switching....43
layers....43
to CG....34
to Frame Grab....218
to Logo Compose....226, 229
to Sequencer....176

T

Tab....34
Background....63
Character Generator....38
Color & Texture....61, 94, 130–137
Effect Settings....50, 52, 54, 56
General....99
Tab continued
Logos....150
News Edit....166
Options....34
Overview....34
Select....244
Size & Attributes....77–90, 138
Styles....41, 72, 139
Transform....246
View....116, 117, 120, 146, 258
Tab stops....122–123
Aligning text with....116
Alignment....122
Center tab....122
Changing....122
in a layout....116
in News Edit tables....163, 164
Left tab....122
Modifying....123
Position....122
Right tab....122
Viewing....123
Tabbed pages....34
in CG....34
in Logo Compose....227
in Sequencer....183, 204
Tab-constrained lines....43, 116
Brackets....116
Tables, News Edit....160
Tablet support....233
Tabs....34
Brush....234
Filter....254
Take....184
Events....184
Take Down....184
Takes....185
Duration....189, 192
Pausings....195
Quick takes....15
Resuming....195
Using the Play List....13
Tasks, in Logo Compose....228
Templates....44, 45, 154–157
Adding layouts to registry....154
Backing up registry....156
Changing....156
Checking spelling....126
Crawls....128
Creating....155
Templates continued
Creating subtitle....170
Default layout....156
Designing for News Edit....158
Layouts....154
Modifying existing....156
News Edit example....159
Overview....154
Rolls....128
Saving....45
Selecting....154
Subtitle templates....169
Textures in....136
Understanding....44
Updating job templates....157
Templates registry....44
Adding layouts....154
Backing up....156
News Edit templates....158
Overview....156
Test pattern....267
Text....76–129
10 Edges....110
Additional type styles....86
Advanced features....124
Aligning to tab stops....122
Appearance....72
Baseline....117, 120, 121
Basics....76
Bevel color....104
Bevel Transparency....104
Beveling....104
Body Depth....107
Boxes....124
Changing path....124
Classic type style....86
Color group....72
Control points....124
Creating crawl file....129
Creating roll file....128
Depth....102
Distorting....100
Dragging....116
Edge & Sheen....112
Edge Over Face....108
Edge size, 10 Edges type style....110
Edge type....90
Embellished....108
Embossed edge....91
Entering....46

Text continued
Face ... 108
Face Depth ... 107
Format Sample ... 40, 72
Formatting ... 71, 74, 78
Glow ... 114
Glow edge ... 90
Grab handles ... 124
Highlights ... 102, 112
Importing ... 128
Importing for crawl ... 129
Importing for roll ... 128
Knockout to background ... 97
Layers ... 34, 117
Left edge ... 117, 120
Local formatting ... 75
Locked lines ... 118
Logos ... 152
Manipulating ... 71, 116
Markers ... 120
Modifying ... 74
Moving ... 116–119
Moving groups of lines ... 118
Moving to another layer ... 49, 117
Moving with keyboard ... 117, 118
Moving with mouse ... 116, 119
Neon ... 114
Non-tab-constrained ... 116
Nudging ... 118
on path ... 124
on spline ... 124
Outline Edge ... 90, 106
Path control points ... 124
Positioning ... 116, 117
Recessed ... 106
Resizing ... 78
Resizing with mouse ... 119
Re-wrapping ... 123
Rotating with mouse ... 119
Screen centers ... 121
Selecting ... 71
Selecting color ... 94
Shadow ... 102
Shadow direction ... 89
Shadow size ... 88
Sheen ... 102, 112
Soft shadow value ... 89
Special characters ... 82
Spline control points ... 124
Style group ... 72

Text continued
Tab stops ... 122–123
Tab-constrained ... 116
Transparency ... 98
Vertical processing ... 125
Word Wrap ... 123
Wrapping ... 46
Text attributes ... 76
Bold ... 76
Defaults ... 76
Edge ... 76
Font ... 76
Foreground. See Face ... 76
Height ... 76
HQ ... 76
Italic ... 76
Kerning ... 76
Leading ... 76
Rotation ... 76
Shadow ... 76
Slant ... 76
Width ... 76
Text cursor ... 46
Text elements ... 102–114
Body Depth ... 107
Depth ... 102
Edge ... 108
Edge & Sheen ... 112
Face ... 108
Face Depth ... 107
Glow ... 114
Outline edge ... 106
Shadow ... 102
Tube ... 114
Text files ... 128, 129, 160
Exporting ... 36
Importing ... 36
Text insertion point ... 46, 116
Text layer ... 41
Text Line. See Text
Text objects ... 70–79
Basics ... 70
Copying ... 71
Cutting ... 71
Edge ... 70, 90
Leading ... 78
Linking to News Edit tables ... 161
Manipulating ... 116
Overview ... 46
Pasting ... 71

Text objects continued
Rotating ... 79
Shadow ... 70, 88
Tools ... 40
Formatting. See Text attributes
Text planes ... 47
Text Risetime Filter ... 38
Text shadow ... 88
Text to Tabs option ... 116
Texture ... 130–137
Adding multiple textures ... 130
Adding to texture map ... 130
Aligning ... 132, 134, 136
Alpha ... 256, 257
Alpha channel compositing ... 135
Applying ... 135–137
Changing ... 131
Channel ... 260
Compositing ... 135
Creating ... 229
Defining on texture map ... 130, 131
Enabling ... 136
from Scrapbook ... 130
Horizontal alignment ... 132
in templates ... 136
Logo Compose, in CG ... 237
on monochrome logos ... 136
Opacity ... 233
Options ... 130, 132
Seamless ... 256
Sizing ... 134
Tiling ... 134
Tinting ... 133, 134
Vertical alignment ... 132
Texture mapping ... 130, 134
Adding textures ... 130
Textures ... 130, 132, 256
Alpha ... 257
Creating ... 256
Tile Transition ... 190
Tiles ... 188, 190
Tiling a texture ... 134
Time Code field ... 203
Time Code reader ... 200
Setting up ... 200
Supported ... 201
Time Code source ... 200
Setting up ... 200
Time Code trigger ... 196, 197
Configuring ... 200

Time codes 200, 210
Details 210
Offset 210
Readers 201
Running a sequence 200
Troubleshooting 210
Timecode format for subtitles 169
Timecode.exe 201
Timecoded subtitles 168
Timecodes 200
Timed trigger 196
Timing 179
Events 179
values, for subtitles 171
Tint 133
Color 133, 134
Texture 133, 134
Transparency 133, 134
Tinting textures 134
Tips and Tricks, in Sequencer 212
Titles. See also Layouts 158
Tool palette 227
Toolbars 34
CG 34, 43
Logo Compose Tool palette 227, 232
Tools 232
Alpha 236
Alpha Add 236, 257
Alpha Fill 236
Alpha Linear Gradient 236
Alpha Luminance Fill 236
Alpha Memory 236
Alpha Radial Gradient 236
Alpha Subtract 236
Alpha Tolerance Fill 236
Aspect ratio 259
Brush Selection 242
Brush-based 232
Burn 264
Clone 251
Color 264
Color Picker 64
Color Selector 64
Color Slider 64
Column Selection tools, Column 242
Dodge 264
Elliptical Selection 242
Formatting palette 40
Freeform 246
Graphic tools 40, 138
Tools continued
in Logo Compose 227
Lasso 242
Linear Lasso 242
Logo Compose 232
Luminance Add 264
Luminance Subtract 250, 264
Luminance Wand 242
Move 246
Offset 256
Opacity 233
Palette 232
Rectangular Selection 242
Rotate 246
Saturation Add 250
Saturation Subtract 250
Scale 246
Scan Line Selection 242
Scroll 232, 258
Selection Move 242
Skew 246
Transformation 246
Using color selection 64
Video 259
Wand 242
Zoom 232
Top Gradient Value 66
Top Transparency Value 69
Total Take Duration 192
Touching up images 228, 250, 251
Transform tab 246
Transformation 248
Absolute Corners 248
Flipping horizontally 248
Flipping vertically 248
Frame of reference 248
Importing 246
Relative 2D 248
Transformation opacity 249
Transformation tools 246
Freeform 246
Move 246
Rotate 246
Scale 246
Skew 246
Transformation type 248
Transformations 229
Depth 246
Ending 247
Exiting 247
Transformations continued
Flipping 246
Options 246
Selections 246
Stopping 247
Tools 246
Transform tab 246
Transition 190
Cut 190
Direction 190
Dissolve 190
Louvre 190
Push 190
Tile 190
Wipe 190
Transition Events 180
Creating 188
Transitions 188
Adding 186
Direction 188
Duration 189
Events 188
Size 189
Speed 193
Transparency 98
100% video 68
Adjusting Bevel 104
Angle 99, 148
Background 68, 69
Beveling text 104
Bottom Value 69
Combining with color 67
Gradient 99, 148
Graphic objects 148
Multiple 100
Setting values 98
Text 98
Tinting textures 133
Top Value 69
Video Transparent Pattern 99
Transparency gradient 99
as background 63
Transparency Lock 98
Transparency Values. See Lock
Transparency, of transformation 249
Transparency. See also Alpha 228
Transparent background 69
Trigger types 196
Changing 179, 186
Configuring 198

Trigger types continued
Configuring, for Time Codes 200
Default setting 215
GPI 196
Manual 51, 196
Multiple triggers 196
PC Clock 196, 197, 203
Time Code 196, 197
Timed 196
Trim Editor 206
Functions 206
Mark In points 206
Mark Out points 206
Trimming a clip 206
TrueType font 76, 80
Removing 81
Tube 114
Tube edge 142
Tube, Color 114
Tubed edge 109
Two-color background 64
Type 62
Edge 90
of background 62
of edge 76, 90
of graphic object 140
of objects 70
of shadow 88
of subtitle file 168
Transformation 248
Type styles 86
10 Edges 87, 110
Classic 76, 86
Depth 102
Distort text shape 100
Double beveled edge 105
Edge & Sheen 112
Edge Over Face 86, 105, 108
Embellished 86, 108, 109
Ghost 108
Introducing 86
Multiple colors 100
Multiple transparencies 100
Neon 87, 114
Recessed 87, 106
Shadow 102
Sheen 87, 102, 112
Tubed 109
Typeface 80

U

Undo
Filters 255
Unsafe colors 95, 263, 264
Updating 157
Color groups 74
Job Templates 157
Layouts 157
News Edit tables 166
Style groups 74
Uppercase letters 79
Using texture 130
Utility, Word import 19

V

Value 58
Vector-based images 237, 262
Versioning 172
Vert Screen, centering 121
Vertical Flip 248
Vertical panel 140
Vertical resolution 28
Vertical screen, centering 120, 121
Vertical text processing 125
Vertical texture alignment 132
Via Builder 20, 213
Video 262
Calibration 266
Chrominance 264
Gamma 265
Graphics 262
Illegal colors 263, 264
Luminance 264
Saturation 264
Video aspect ratio 259
Video background 68
Basics 62
Overview 62
Video buffers, calibration 266
Video Cleanup Filters 254
Video dither 28
Video feed 46, 62
Video Safe Title Area 120–121
Video Transparent Background 62
Video Transparent Pattern 99
Setting 28
View 258
Alpha only 258
in color 258
RGB 258
Typeface continued
Tab 258
View menu, in Logo Compose 227
View tab 116, 117, 120, 146
Grid 258
Options 258
Preferences 258
Zoom levels 258
Viewing 267
Aspect ratio 259
Font faces 80
List of modifiers 226
Markers 121
Screen coordinates 226
Size of image 226
Tab stops 123
Zoom levels 226
Visible Layer, 10 Edges 110
Visible, selecting 244

W

Wacom support 233
Wait field 192
Wait Time 192, 196
Wand tool 242
Warn Layout Changes 38
Wedge 140, 141
Wedge direction, changing 145
White point 267
Width, of text 76
Windows character map 82
Wipe Transition 190
Wipes 188, 190
Word import utility 19
Word Wrap 46, 123
Disabling 49
Enabling 49
Re-wrapping 123
with crawls 54
with rolls 53
Work flow 10
Workspace 34
in CG 34
in Logo Compose 226
in Sequencer 176
Wrap text 46

Y

Yellow 264

Z

Zoom in....258
Zoom levels 226, 258
Zoom on layouts 35
  in CG....35
Zoom out....258
Zoom tool....232

Technical Support

There are several sources for CG Supreme technical support.

Technical Support from your dealer

Contact your dealer first! Since your dealer helped you configure your system, your dealer is also the best resource for system configuration issues and problems.

If your dealer can't help you...

If your local dealer is unable to resolve your technical support problems, contact Inscriber Technology Corporation.

Please have your software serial number available when you call Inscriber Technical Support. Your serial number can be found in a number of places, including software packaging, on the dongle, and on your install disks.

Phone: 519-570-9111
9:00 a.m. to 5:00 p.m. EST

Fax: 519-570-9140

Email: support@inscriber.com

You can also post a technical support question on our web site, and our support staff will answer your questions.

Product Updates

You can download product updates from our web site, or you can use one of these methods to receive updates.

Web site: www.inscriber.com

Email: support@inscriber.com